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## BERGSON AND PRAGMATISM.[1]

IN view of the differences of opinion among the increasing number of expounders of Bergson, and with Professor Lovejoy's "Thirteen Pragmatisms" still in mind, one may well have misgivings about an attempt to discuss the relations between Bergson and pragmatism within the traditional limits of the period allotted to this paper.

As for Bergson, I think most of us will agree that "the elements are so mixed in him" that one may well say that he bids fair to become a mild rival of Kant in commentary possibilities. A Bergsonian Caird or Vaihinger will have no difficulty in pointing to a regress in Bergson which, if not quite so 'transcendental' as in Kant, is no less 'regressive.' And sooner or later, some one is sure to suggest that Bergson, like Hegel, should be read backwards.

The doctrines of Bergson's philosophy which are commonly supposed to contain its chief points of contact with pragmatism are: first, its instrumental theory of Knowledge; second, its anti-intellectualism which is a corollary of the instrumentalism; third, its evolutionism.

Of these proposed articles of alliance between Bergson and pragmatism, most attention has been given to the first two; to the instrumentalism, and the anti-intellectualism;—to the latter especially by James. But, in my opinion, it is Bergson's evolutionism which pragmatism may receive with the most unhesitating hospitality, while it is precisely his instrumentalism and anti-intellectualism that diverge most widely from what

[1] Read as the President's Address before the annual meeting of the Western Philosophical Association, at Chicago, April 5, 1912.

I understand pragmatism to be. It is these two doctrines, therefore, which I wish particularly to discuss.

## I.

When we read in the second sentence of the introduction to *Creative Evolution* that the understanding is "an appendage of the faculty of action," that sounds indeed very much like pragmatism. And when further on we are told that one great stumbling block in the way of philosophy in the past has been the assumption that knowledge must be coexistent with the whole of reality,[1] that sounds like more pragmatism; and hereupon many pragmatists have hastened to extend to Bergson the right hand of fellowship, feeling that in view of so much apparently fundamental agreement, whatever differences remain could be easily adjusted. And if this agreement were as extensive and fundamental as these and many similar passages taken out of their connection indicate, this action would be justified. I say 'out of their connection,' for as we follow up the context of these statements, doubts of their pragmatic character begin to haunt us.

The proposition that thinking is an "appendage" or even an organic part of action, is far from constituting a pragmatic declaration of faith. 'Action' is not the pragmatic password, much popular belief to the contrary. Not until one states first what he means by 'action,' and what he considers its place in the rest of experience can his pragmatism be judged.

What, then, for Bergson, is the nature and function of this action to which or in which knowledge is instrumental? Is this action itself instrumental? If so, to or in what? Bergson's responses to these questions are, as he says, "frankly dualistic."[2] The action of which all reflective thinking is a part is the action of spirit on or through matter. Bergson hastens to let us know at once that he is aware of the difficulties which, as he says, have always beset this dualism. But he confides to us that he hopes to greatly lessen, if not to overcome them.

Now the fact that here at the outset Bergson is apprehensive

[1] P. 190.

[2] *Matter and Memory*, p. vii.

of the historical difficulties of this dualism shows that it is for him an ontological one. For if he held this opposition as an instrumental, a logical one, there would be no fear of the sort of difficulties which he here anticipates. From the instrumental standpoint, this sort of dualism has no terrors. Instrumentally, there is a dualism for every pair of correlative categories. Whatever then may turn out to be the nature of Bergson's instrumentalism, it is apparent from the beginning that it cannot be what pragmatism means by instrumentalism.

Returning to our inquiry as to the character of the action of spirit on matter, of which thinking is a part, it is obvious that we can make little headway until we know something of what Bergson means by 'spirit' and 'matter.' In the large, this is of course a problem for some Bergsonian commentator, and I shall have to treat it here very summarily. At the outset, the opposition between spirit and matter appears to be very similar to the later scholastic antithesis of pure activity and an external, inert, purely negative, resistance. As we seek for a general characterization of this pure activity of spirit—which in *Creative Evolution* is real or pure duration—we are confronted, for reasons which we shall presently see, with two accounts of it: When he is trying to draw action and its resistance as closely together as possible, Bergson speaks of this activity as unconscious. The other and the characteristic view is that "consciousness is the best term we have for it." To be sure it is not satisfactory. But if consciousness be purged of all perceptions, specific memories, and conceptions, what is left will approximate the activity of real duration. Psychologically, the content of real duration oscillates between a cognitive and a volitional character. But it is contact with matter which slows up, condenses, and precipitates this pure activity, the imageless consciousness of real duration, into the imaged world of space and spatialized time.

But before long Bergson begins to feel the pressure of some of those difficulties which he anticipated at the start. Besides the obvious strain in the conception of the 'action' of pure activity *upon*, or its 'contact with,' anything, there are all the troubles that belong to the metaphysical dualism of matter and

resistance. If spirit is really metaphysically independent of matter, why must it act upon or make its way through matter at all? Why may it not turn its back on matter and go on its way rejoicing? The only answer Bergson makes is that whichever way spirit turns it finds itself "confronted with matter." But if spirit is *always* thus confronted with matter, how can we say that this opposition is not essential to the very nature of spirit itself? This and the closely related difficulty in the conception of an activity without resistance, which real duration is if it can go on without matter, force upon Bergson the necessity for making a closer connection between the conceptions of activity and resistance. Hence the first statement of action must be revised. We are no longer to think of the action of which thought is an 'appendage' as due to the collision of pure spirit or pure duration with an external matter already there in advance. We must now see that matter *is* nothing but the stoppage, the relaxation of the activity of pure duration, and its condensation and preciptation into the imagery of the spatial and temporal world. This revision Bergson calls "the ideal genesis of matter."

Though this amendment succeeds "in lessening," as Bergson says, the metaphysical chasm between pure duration and its resistance, the comfort, if any, is short-lived. For the revised conception has now to face the question: Whence this stoppage, why this relaxation and condensation of the continuity of real duration? Whatever the other difficulties, the first account of action had an answer to this question. It is matter already there which somehow (just how is not altogether clear) inhibits real duration and condenses it into a world of imagery. But now this condensation, this imagery *is* matter, and there is nothing here to account for or give meaning to the inhibition itself. Whenever the exposition reaches the point where this situation becomes acute, Bergson simply falls back upon the first position. Matter is thus by turns a prior condition of, and then identical with, the condensation of real duration into images. The full significance of this circle will be considered a little later. What I wish here to notice is, that in the opposition between the intellect and the imageless consciousness of real

duration, we have the correlative of what is perhaps the fundamental antithesis in pragmatism, namely, the distinction between *immediate* and *reflective* or *logical* experience. Not that the basis or the content of the terms of the distinction are the same in Bergson and in pragmatism. Far from it. Yet there is the common distinction of immediacy and reflection. But while reflection for Bergson is 'instrumental' in the sense of being a part of action, this action, on either of the above interpretations of matter, is itself *accidental*. It stands in no vital relation to 'real duration' as such. The imageless consciousness of real duration goes on not by the help of, but in spite of, reflection. In relation to Bergson's immediate experience reflective thought is therefore not an instrument, but an accident.

Here, then, is the first radical divergence between Bergson and pragmatism. For the pragmatist, the action of which thought is a part is no cosmic accident; it is not a fall from a beatific Eden of pure duration. The pragmatist's version of Eden is that the fall happens before the apple of knowledge is eaten; that before the visit to the tree, the serpent of conflict and discord has already done his work; that in fact the eating of the apple, instead of the cause is an attempt to cure the fall—the fall, namely, of unreflective experience into conflict and consequent woe. Now the first effect of a cure often is to exaggerate the symptoms of the malady it treats. And this may well happen here. For the remedy, being knowledge, will isolate and emphasize the elements in conflict, and this might easily be mistaken for the original trouble, as it apparently is by Bergson. But the pragmatist believes that the original sin is to be found in the conflicts of immediate experience.

But when pragmatism says intelligence finds its material in the conflicts of immediate experience this does not mean that immediate experience is always and as such, in a state of conflict and disintegration. This, as Professor Bode has pointed out in his interesting article on immediacy,[1] was Kant's mistake. Bergson's, we may observe, is just the opposite. Immediate experience as such has perfect continuity while intellect is a disintegrating instead of a synthetic activity.

[1] *Journ. of Philos., etc.*, Vol. IX, p. 141.

Here, perhaps, some or all of you are demanding that something should be said about the meaning of 'immediate experience.' The point is well taken. And this brings us to a second important difference between Bergson and pragmatism,—the difference in their views both of the basis and the content of the distinction between immediacy and reflection. For Bergson, immediacy is a quality attaching to a certain fixed kind of content, namely, the imageless experience of real duration. For pragmatism, immediacy is a character of any and every sort of experience—impulse, feeling, imagery, will, action of all kinds, *in so far as they are not under doubt and inquiry*. Immediacy is not a property belonging to one particular part or content of experience. It is the functional, the relational property of being free from doubt. To call a character 'functional,' however, does not mean that it may not in itself be perfectly specific and unique. 'Over' and 'under' are as specific as a color of the spectrum, though I suppose we should all agree that they are functional. So long as it is assumed that when a pragmatist speaks of 'immedate experience' he has in mind 'sensations' or 'mental states' or even 'action,' the 'misunderstandings' that have been so much complained of are sure to continue. It is true that in the early days of the pragmatic movement, so much was said of thought arising out of and returning into action that it is little wonder that immediate experience was taken to mean something called 'action,' into which it was about as difficult to get content as into Bergson's real duration. But as the exposition continued, it was soon made clear that mere action was neither the origin nor the goal of thought; that the action of which thought is a part, arises in response to the demand of conflicting immediate experience for reorganization; this immediate experience including unreflective actions along with things and qualities of every sort, personal and impersonal.

This functional character of the distinction between immediate and reflective experience implies that our instrumentalism must be reciprocal. This brings into view a third difference between Bergson and pragmatism. If thought is instrumental to the reorganization of immediate experience, its demand for this reor-

ganization is equally instrumental to thought. Instrumentalism is still for many an invidious term. To say intelligence is instrumental seems to many zealous defenders of the independence of thought to make intellect subordinate and in some way inferior in status to the rest of experience. The parallogism in this is, of course, elementary. So far as status is concerned, "let him that would be greatest be the servant of all." Besides, if we may indulge in a bit of Bergsonian animism, it is in the hour of sore distress that immediate experience comes supplicating the throne of intelligence. On the other hand, if we crown intellect lord of all, still even a lord must find it up-hill work trying to lord it all by himself, which is very much what a certain type of intellectualism seems to make intellect try to do. Now, if it be a fact that in our scientific and practical procedure we are obliged to treat the distinction and relation between immediate and reflective experience, not as ontological, accidental, and as moving in one direction, but as functional, indigenous and reciprocal, we should not be surprised to find that an exposition setting out with the former should find itself obliged to substitute the latter. And just this is constantly occurring in Bergson and is the explanation of the double rôle which nearly every important category in Bergson is forced to play. Let us examine a few instances. I am aware that what follows will appear to a Bergsonian to be the lowest dregs of intellectualism and to offer the best possible justification of all the hard things Bergson has said about the intellect. To this, I can only offer a denial of all captious intentions. I wish only to show the difficulties in the attempt to carry out the spirit and intent of an evolutional standpoint in philosophy, which Bergson undoubtedly represents, with a 'non-evolutionary' logic.

We may begin with the antithesis of matter and what is variously called spirit, life, real duration, will, intuition. As we have already seen, matter is presented as sheer external resistance; or as the 'inhibition' and 'reversal' of pure duration or life; as something from which the latter is struggling to get free. But we do not go far in *Creative Evolution* before we read that "life *is* more than anything else a tendency to act on inert

matter."[1] What then would life or spirit do or be if it really succeeded in getting rid of matter? Here, perhaps, is the place to note in passing that Bergson's substitution in *Creative Evolution* of the term 'life' for 'spirit,' which is generally used in *Matter and Memory*, does valiant service in the work of getting rid of the ontological dualism. For in the former the term 'life' has two meanings. One is identical with spirit, real duration, and is in direct opposition to matter; the other meaning is that of a living organism, in which of course matter is included.

But not only is there a recognition of a general dependence of spirit upon matter, but this dependence is specified, and it turns out to be for no less a matter than the individuation of spirit or 'life' itself. "Regarded in itself, it (life) is an immensity of potentiality, thousands and thousands of tendencies which nevertheless are thousands and thousands only when specialized by matter. Contact with matter is what determines this dissociation. Matter divides actually what was but potentially manifold."[2] . . . "The matter that life bears along with it and into the interstices of which it inserts itself, alone can divide it into distinct individualities. The sub-division was vaguely indicated (in life itself), but never could have been made clear without matter."[3]

Another phase of this dialectic appears in its relation to the notion of movement. On the one hand, matter *is* the stoppage, the cessation, of movement. It is sheer position in contrast with life as pure movement. On the other hand, life is one movement and matter another co-ordinate with it, but in opposition to it. "In reality life is a movement, materiality is the inverse of movement, and each of these two movements is simple, the matter which forms a world being undivided, also the life that runs through it cutting out living beings all along its track." "Of these two currents," continues Bergson, "the second runs counter to the first, but the first obtains, all the same, something from the second. There results a *modus vivendi* which is organization. This organization takes for our senses and our

[1] P. 96.
[2] *Ibid.*, p. 258.
[3] *Ibid.*, p. 269.

intellect the form of parts external to other parts in space and time."[1]

It is obvious that such a passage, and it is one of a series, surrenders even as it proclaims the opposition of life and matter. For how could life cut living beings out of matter, if matter were nothing but the reverse movement of life? As such a movement, it would have to reverse this movement of cutting out living beings. But, on the contrary, it aids and abets it, not only so far as to secure a *modus vivendi*, but to the extent of real organization.

The oscillation in the treatment of instinct and intelligence is perhaps even more striking. At the outset, instinct and intellect are presented as two co-ordinate, radically divergent, yet "equally fitting" reactions of the life impulse on or through matter. Instinct which works only with living organs is much closer to the nature of life and real duration than intelligence which fashions its tools from inert matter. But soon we find that "it is the function of consciousness and especially of human consciousness to introduce into matter indetermination and choice," which are of the very essence of spirit. But "choice involves the anticipatory idea of several actions,"[2] and this is intellectual consciousness. Again, it is at the point of human consciousness *only* that spirit breaks through its prison walls of matter to freedom. But "consciousness in man is pre-eminently intellect."[3] Again, though both instinct and intelligence are, in Bergson's words, "equally fitting solutions of one and the same problem," the problem, viz. of action on or through matter, yet in the same paragraph we read: "that nature must have hesitated between two modes of psychical activity, instinct and intelligence, one, assured of immediate success, but limited in its effects, the other hazardous, but whose conquests, if it should reach independence might be extended indefinitely," and, continues Bergson, "*the greatest success* was achieved on the side of the greatest risk"[4] (though "both are equally

[1] *Op. cit.*, p. 249.
[2] *Ibid.*, p. 96.
[3] *Ibid.*, pp. 266–267.
[4] *Op. cit.*, p. 143.

fitting"). Also in this passage there is another illustration of the workings of Bergson's metaphysical logic, in the way in which the immediate certainty of instinct and the larger range of intellect are set over against each other as fixed but mechanically compensating possessions. He overlooks the fact that the instinct's lack of range may at any moment destroy its immediate certainty. The instinctive strike of the fish, which in the depths of an undiscovered mountain pool makes it immediately certain of a dinner, makes it equally certain to be a dinner for someone else, when man and his spoon hooks arrive. If there is hazard in widening the range there may be greater hazard in not widening it. If instinctive food and shelter are nowhere to be found, there is no doubt a hazard in substituting something else, but it is a hazard of life against the certainty of death if we stick to the instinctive form.

Of the dialectic in the treatment of consciousness, I will only point out that consciousness appears at one time as a function of the action of spirit or real duration, on matter. At another it is the best term we can get for the nature of real duration itself, which is struggling to get through and through with matter. In many passages in *Creative Evolution*, this ambiguity might be charged to a use of the term 'consciousness' where *intellectual* consciousness is meant.[1] But it is difficult to continue this interpretation where, in *Matter and Memory*, we are explicitly told that pure memory, which there is the term for real duration, is *unconscious;* that it is precipitated into consciousness only by contact with matter, and where the conception of unconscious psychical states is defended with true Herbartian fervor.[2]

And this brings us to Bergson's reconciliation of matter and spirit. Now a reconciliation of two conceptions which are in as sharp metaphysical opposition as matter and spirit or real duration, is a serious undertaking. So long as the opposed concepts are kept busy with specific problems, this opposition gets little chance to know itself. But when a deliberate recon-

[1] This we may note is still a source of confusion in current discussion.

[2] Chap. III.

ciliation is proposed, this means that the members of the opposition are to be brought face to face with nothing on hand but just the business of reconciliation. And this is always an awkward situation. From Bergson's standpoint, there can be only one method of effecting this sort of abstract reconciliation. That is simply to persuade the parties to the opposition that they are, after all, very much alike; that there is, in fact, only a difference of degree, not of species, between them. Hence, the necessity for the operation of anæsthetizing life into unconsciousness, galvanizing matter into life. Matter is suddenly awakened from its inertness and begins to vibrate in rhythms much more rapid than those of consciousness, and therefore really nearer the continuity of pure duration than is consciousness itself. Instead of matter being a condensation of consciousness, consciousness appears to be a condensation of matter.[1] "The qualities of matter are just so many static views we take of its instability."[2] Finally, the only difference that remains is just the difference in the rhythms of motion—a difference of degree, not of kind.

But this reconciliation has a brief existence. For the moment Bergson starts to use these concepts of physical and psychical, in the discussion of a concrete problem, he discovers that there is more than a difference in degree between them. The difference between a physical and a psychical rose is primarily not one of degree. The physical rose is not redder or sweeter than the psychical one, neither is it merely more vivid and lively. This, as Bergson himself very clearly expounds at length, was the mistake of English sensationalism. There must be, as Bergson is here forced to say, a difference in kind; but (and this is the crucial question) what *kind* of a difference in kind? The only *kind* of a difference in kind which Bergson can assign is just a difference of ontological species, and when this in turn breaks down as we have seen, Bergson falls back again upon the difference of degree.

Here we have again, and perhaps in sharper outline than we have had before, the generic difference between Bergson and pragmatism. Bergson finds no alternative between a mere

[1] *Creative Evolution*, p. 301.
[2] *Ibid.*, p. 302.

difference of degree and a difference of ontological species. For instrumentalism there is an alternative. It is that the difference in kind between physical and psychical is a difference in *the kind of function* which any content otherwise recognized as the same may perform. It is obvious that what for our purpose is *otherwise* the same is now psychical and now physical just as it may be now under, then over; here good, there bad.[1]

If there are ardent Bergsonians present, some of you perhaps are saying: What a caricature of Bergson is this! As for instrumentalism, where, you will ask, can be found any more explicit recognition and use of instrumental logic than in Bergson's treatment of the categories of order and disorder, laws and genera, of being and nothing, and of the negative judgment? And the answer must be freely: Here is indeed such an extensive and systematic application of instrumental method that we marvel as we read how Bergson could have escaped feeling the necessity for returning and reconstructing the rest of his work so as to bring it into line with the treatment of these conceptions. As he does not do this, we can only conclude that Bergson simply does not appreciate the importance of what he is here doing. The fresh enthusiasm with which Bergson in these passages expounds the positive basis of the negative judgment, makes one wonder if Bergson has followed the work of modern English logicians, not to mention Hegel.[2]

## II.

Bergson's type of anti-intellectualism and his opposition of science and philosophy are of course but further consequences of the attempt to expound an evolutionary philosophy with a non-evolutionary logic. When he encounters the limitations and failure of this logic, instead of reforming it, he throws logic and the intellect over and takes his stand on pure immediacy.

[1] For a detailed treatment of this distinction, see G. H. Mead's monograph on *The Definition of the Psychical*, and Dewey, *Studies in Logical Theory*, pp. 53–54.

[2] So far as I know, Hegel's name does not occur in Bergson's works—though Kant is frequently in evidence. Yet there are passages in Bergson that might well pass for "Hegelisms"; *e. g.*, "Consciousness in shaping itself into intellect, in concentrating itself on matter, seems to externalize itself in relation to itself."

Perhaps a Bergonsonian would reply that there are some things that are past reforming. And to talk of reforming the intellect through what you call 'instrumental logic' is like proposing to reform a liar by having him lie 'functionally,' or a burglar by teaching him 'instrumental' burglary. The gist of Bergson's indictment of the intellect is briefly this: All intellection consists in treating objects as consisting of units or elements. We do this because we find that by so doing we can reproduce or destroy or alter or in some way control the object as a whole or ourselves in relation to the object. This succeeds (when it does succeed) in accomplishing the particular purpose for which we desire this control. But, though we may call this 'knowing' or 'thinking' the object, in this *kind* of knowing we do not experience the object in its unity, because we experience it in units. We know in part because we know in parts. Knowing fails in two ways: first, it destroys the integrity of the object, which otherwise we might experience through sympathetic intuition or intuitional sympathy; second, it does not even get at the parts themselves. For the moment we regard things as mere units or elements of something else, we disregard and ignore all the properties which these elements have except just those that make them elements in the thing we want. If we are hungry and seek the elements of bread, we ignore the properties in these units that might make them elements in painting a picture or in running an engine, unless we should happen to want to eat and to paint and to run an engine at the same time. Even then, we should pass over innumerable other possibilities.

We have tried, but in vain, as Bergson thinks, to remedy this, by attempting to find elements that have no other properties except just to be elements. These are the mathematical and spatial unit. But, says Bergson, and rightly, we never actually work with these units unless we are pure mathematicians, and even a pure mathematician must now and then do something besides counts. The moment we set about any other specific project than one in pure mathematics, we must operate with definite things as units and elements, and then begins again our process of ignoring and leaving out everything in the units except

that which concerns our little enterprise. Intellectual analysis, therefore, is doomed by its essential nature to mutilate, and therefore to be untrue to reality.

Observe in passing that this from the author of *Creative Evolution* sounds strangely like a passage from Bradley's *Appearance and Reality*. But what now from Bergson's standpoint can be done? Doubtless as matter-encumbered beings we must go on acting, therefore we must go on with our unitizing, spatializing science. But, we must remember that we are also members of the world of real duration—even as for Kant we are members of the "intelligible world." And with this in mind and by a special, not to say mystic, effort we may succeed in shutting out the world of action and its machinery of units and space, of causes and effects, and find ourselves in the world of real duration, and our experience in the form of intuition, which is the method of philosophy.

Still the inexorable dialectic pursues us. At one time this philosophical intuition seems to be cognitive. "As it is the business of science to act," says Bergson, "it is the business of philosophy to see, to speculate." But 'seeing,' 'speculating'—these are visual terms, at least visual analogies, and vision, says Bergson, "*is* nothing but anticipated action." So we swing again to the side of feeling and impulse, and so far do we go in this direction that the creative impulse and intuition of the painter and the poet is contrasted with its 'interruption' and 'congealment' into lines and colors, words and letters. Whereupon we find ourselves wondering if we are to say that the creative intuition of the physician is interrupted by his patients; that of the lawyer by his clients; and the shop-keeper's by his customers.

Bergson seeks to avoid this absurdity by saying that the reason this congealment of the creative intuition into specific forms is felt as an interruption is because it has to use old material, old colors, old words, etc. If it could only completely create new material along with the new form, there would be no sense of interruption. But, aside from all the difficulties in the conception of a creation that is not a re-creation, if both the form and the matter must be wholly new, how then are we to keep hold of *all*

the past which Bergson so often insists is an essential character of real duration?

But supposing that in the experience of real duration we get rid of the unitizing method of the intellect, from the standpoint of Bergson's interest in not leaving out anything, are we any better off? For now we are missing all the images and qualities which the condensing intellect produces.

Instrumentalism quite agrees with Bergson that when, in science and practical procedure, we use some things as units or elements of something else, we do pass over possibilities in these elements which are not relevant to our purpose. But there is a consideration here which Bergson overlooks—one which measures the distance between a metaphysical and a functional logic. This is, that in the very process of unitizing, the intellect *may recognize* that its units are selected and constituted to control a certain object or class of objects.[1] It may freely see and confess that it is here "passing over" properties in the "elements" that are to be reckoned with at other times and places, and for other purposes. And where this is the case, how much basis then remains for the charge of omission and mutilation? Here, the very act of ignoring involves a recognition and acknowledgment of that which is ignored, the positive side of the exclusion is the *recognition* that what is here passed over may be of value in other situations, and may *acquire* value for situations similar to this. As against a logic which does not recognize this, Bergson's indictment of the intellect stands good. But his substitution of pure immediacy falls straightway into the same ditch from the other side.

Here, doubtless, a Bergsonian will say: "Do you not see that when you talk of excluding something as even temporarily irrelevant, you completely miss Bergson's conception of intuition, and pure duration? Suppose you do recognize that you are ignoring something or pushing it into the background, this does not alter the fact that it is being ignored and passed over. If you ignore my presence it is small comfort to be told that you

[1] Cf. Professor Perry's "Notes on the Philosophy of Henri Bergson." *Jour. of Philosophy, Psychology and Scientific Methods*, Vol. VII, No. 25, p. 677 ff.

*know* you are ignoring me, and if you apologize by saying it is only temporary, that my turn will come soon, still as a logician, not to say as a mere human being, I am bound to recognize that some one else must then be left out and so on endlessly. And does not all this confirm Bergson's contention that action and intellect are necessarily mutilative, and that if we are to experience reality in its unbroken continuity it must be done in an experience in which nothing is even temporarily irrelevant or in the background?"

Noting, once more, how similar to Bradley's absolute "sentience" this would be and how it would raise again the problem of individuality, let us observe further that in terms of attention it abolishes the distinction and interaction between the focus and the fringe. And it is difficult to say whether for Bergson what we have left is all focus or all fringe, or a combination of both. Sometimes it is one and again the other—depending on whether real duration is construed cognitively, or volitionally. In terms of art, it removes the distinction between foreground and background. Some have characterized Bergson's work as an attempt to carry over into Philosophy the standpoint and method of art. But in art the organic relation between focus and fringe, foreground and background, is fundamental.

But what I wish particularly to urge at this point is that Bergson does not see that the selection and construction of units and elements in the procedure of science involves the very sort of intuitive appreciation for which he is contending and which he is seeking elsewhere. In one of his 'reconciling' passages, Bergson goes so far as to say that "Intellect and Intuition though opposed are yet *supplementary* processes," the first, as he says, retaining only moments—that which does not endure—the other bearing duration itself.[1] But while this is quite different from the negative opposition with which we began, it is still far from an organic relationship. There is no statement of *how* they supplement each other. The supplementation seems to consist of one furnishing something which the other does not in making up the content of real duration. But in scientific

[1] *Creative Evolution*, p. 344.

procedure there is a real supplementation. It is precisely the presence of a fringe of intuitive appreciation of the continuum from which the 'elements' are taken and of the ignored characters of the elements themselves, that constitutes the sensitive alertness of the successful scientist. Not only as the immediate form of the 'inspired' invention or discovery, but as a part of the more plodding process of verification is intuition as indispensable in science as in art.

Again it would be easy to cite passages from Bergson in which this is recognized:—passages in which he speaks of the spontaneous and unpredictable character of the unitizing action of the intellect. But this spontaneity is not brought into any kind of organic connection with the results of the unitizing work of the intellect. It is simply a bit of real duration lodged in the interstices of the scientific process, saving science from a wholly unregenerate materialism.

In making intuition the method of philosophy, it is one of Bergson's cherished convictions that he is 'saving' philosophy from the dogmatism of the realist on the one side, and the transcendentalism of the idealist on the other. And it is indeed true that, for Bergson, real duration is not merely a presupposition of moral experience. He is not obliged, as was Kant, to be content with saying: "we know *that* real duration is, but not *what* it is." In moral and artistic experience, real duration is directly present. "The Grail in my castle here is found." And yet it seems that it is only when we close our intellectual eyes to the castle and its contents, or fuse them into a unity of impulse and feeling that we get—we cannot say a glimpse, for a glimpse is an image, and an image is anticipated action—shall we say, then, a *sense*—or using Bergson's own term, an *intuition* of the Grail of reality. But after all, is not this the very essence of transcendentalism—namely, an attempt to find reality in or with some part or function of experience to the exclusion of the rest? Logically are not the difficulties the same whether transcendentalism appeals to a superempirical process or to some one process or experience as against the others? Logically is not the crassest sensationalist as much of a tran-

scendentalist as the absolute idealist? So it will not be strange if, as transcendentalism has appeared to some to be a bashful intuitionalism, Bergson's intuitionalism should seem to others to be a shy transcendentalism.

I am aware that I have dwelt far more on the differences than upon the large common ground between Bergson and pragmatism. My excuse must be that the latter has been emphasized so much, that it has seemed to me important differences were being overlooked and that a canvass of these would make for a better understanding both of Bergson and pragmatism.

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# THE RELATION OF CONSCIOUSNESS AND OBJECT IN SENSE-PERCEPTION.[1]

WHAT is the relation with respect to numerical identity or difference between real objects, meaning by these such objects as are true parts of the material world, and perceived objects, meaning by these such objects as are given in some particular actual perception? Different answers are given to this question. It is held by some that the real object is always given in some particular actual perception, that the real object cannot exist independently of any perception, that the real object and the perceived object, the object given in some particular actual perception, are at the moment of perception numerically one. What makes an object an object at all is the fact that it is perceived. Objects which are not given in some particular actual perception are not real, and yet not all objects given in some particular actual perception are real. This is the theory that goes by the name of subjective idealism. Epistemological dualism and realism declares that the objects given in some particular actual perception and real objects are not numerically identical. The perceived objects may be representative of the real objects, but they are at the moment of perception numerically two. The real object can exist at other moments independently of any perception. According to epistemological monism and realism, the objects given in perception are sometimes real, that is, true parts of the material world, and sometimes not real; and real objects are sometimes perceived and sometimes not perceived, that is, not given in any actual perception. The real object and the perceived object are at the moment of perception numerically one, and the real object may exist at other moments apart from any perception.

These theories evidently have points in common. Subjective idealism and monistic realism agree that the perceived object

[1] Paper read before the American Philosophical Association at Harvard University, December meeting, 1911.

and the real object are at the moment of perception numerically one, but that not all perceived objects are real, that perceived objects are sometimes not real, not true parts of the material world, and hence that the perceived object and the real object are sometimes not numerically one at the moment of perception. They differ in this: according to subjective idealism the real object cannot exist independently of any perception, while according to monistic realism it can. Any theory therefore which holds that the object which is perceived, or given in some particular actual perception, can exist independently of any such perception is epistemological realism. Consequently, in so far as the branch of idealism which is called objective idealism holds this, it is realistic; and in so far as it holds that the object given in perception is numerically identical with the real object, this form of idealism is also monistic. Whatever difference, therefore, there may be between monistic idealism and monistic realism will have to be a metaphysical difference, a difference in metaphysical standpoint. Epistemological dualism and epistemological monism, in so far as they are both realistic, agree that the real object can exist independently of any perception; but they differ as to whether the real object and the perceived object are numerically identical at the moment of perception. A realistic theory may, however, be monistic in its epistemology and dualistic in its metaphysics: it may hold that we directly perceive the real object, a true part of the material world, that the real object and the perceived object are numerically one, but that the percipient and the object are ultimately two.

The question at issue may, then, be stated thus: In cases where a real (and non-hallucinatory) object is involved, what is the relation between the real and the perceived object with respect (*a*) to their numerical identity at the moment of perception, (*b*) with respect to the possibility of the existence of the real object at other moments apart from perception? Are the real object and the perceived object numerically one at the moment of perception, or are they two? That is, is the complex of physical qualities, which is a true part of the material world, numerically identical with the complex of physical qualities,

which is given in some particular actual perception, or is it not?

To the naïve man this question will at first appear quite meaningless: to ask what is the relation between the real object and the perceived object will seem to him to ask what is the relation of the object to itself. For him the objects which he perceives here, over there, around him, his body and the things, are real objects and occurrences, of course; objects and occurrences which will go right on existing when he closes his eyes or removes his hands from them, and go right on existing practically as they are. They are what they are: we may perceive them differently at different times, under different circumstances; they may look different; but they are just what they are; the orange is yellow in the light and in the dark, that is its real color; in the dark we do not see it yellow, but it is yellow just the same. The question of the numerical identity of the real thing and the perceived thing does not occur to him at all; the thing he perceives *is*, ordinarily, the real thing: it does not disappear when he ceases to see it or touch it or taste it or hear it; he simply ceases to see it or touch it. Other persons will perceive it just as he perceived it; it will remain there for any one that pleases to look at or touch it. And even if no one were there, God or man or brute, it would go right on being, being just what it is in itself. Nor does the naïve man regard the thing as the cause of his perceiving it; it is simply there, over there, or next to him, against his body. He perceives it exactly as it is; he may not perceive everything about the thing; with greater attention and all kinds of instruments he can see it better, but what he does perceive of it is there, in the thing. Nor does he regard the things as modifications of his soul or consciousness, or even as a state of his sense organs or of his brain.

Reflection upon certain experiences, however, such as differences in what is taken to be the same object, dreams, illusions, and hallucinations, provokes the inquiry, Why do we perceive objects in the *wrong* way; why do we perceive objects which do not exist at all? It would appear that, in some cases at least, what is perceived is not a true part of the material world, is not

something independent of any perception. Attempts are made to explain these facts, to discover what *the* real object is, attempts which may lead the inquirer farther and farther away from the naïve realism from which he started and finally land him either in a dogmatic metaphysics or agnosticism or scepticism. The practical man will conclude that the object is, normally, actually what he perceives it to be, but that mistakes occasionally happen; he will eliminate certain perceived objects as pseudo-objects, or regard them as different view-points of the real objects, selecting certain experiences as the true reality; he will use his own and other persons' normal perceptions to correct his picture of the real world. These very facts, however, will suggest the inference that the real objects are not perceived exactly as they are, that our way of perceiving them contains many elements which are added by the percipient. They may give rise to the view that the real object is never directly perceived, that the perceiver does not get the object at all but only its representatives, which representatives may be, in whole or in part, similar to the real object, or symbols of it. Or the philosopher may declare that though there is a thing independent of the perceiver, this thing neither presents itself to him *in propria persona*, face to face, nor through faithful representatives, but that it is unperceived and unknown. He may consider even the existence of such a thing in itself problematical, or he may finally deny its existence altogether, coming back to something like the original naïve position: perceived world and real world are one and the same; only, the perceived world is a mental world: the world is my idea; there is no extra-mental world.

The question arises whether there is any way of escaping the conclusion that the qualities which are given in some perceptual situations are not true parts of the material world. Natural science seems to confirm rather than shake it; indeed, it appears to compel us to take a still more radical position than the one suggested, namely, that the world of things in themselves is not at all what it is perceived to be. It is conceived to be made up of numberless moving particles of matter or points of force; the scientific *conception* of the universe does not agree with the

naïve *perception* of the universe. The complex of physical qualities, given in some particular actual perception, which we call a round, yellow, solid, fragrant object, is certainly not numerically identical with the complex of physical qualities,—moving molecules of matter and ether, molecular action in the sense organs and in the brain,—which is said to be a true part of the material world.

But let us throw physics to the dogs and start afresh. Let us dogmatically declare that the real object and the perceived object are numerically identical at the moment of perception, in the sense already explained; and let us see whether our difficulties can be removed. Experience tells us that what we regard as one and the same thing changes under the scrutinizing attention, under the microscope, under different conditions of the perceiver and his environment, that it is perceived differently by different senses, in other words, that the complex of physical qualities given in one continuing perception, or in different perceptual situations, is not the same. These facts can be explained, on the basis of naïve realism, only by assuming the existence in the real world of all the qualities given in perception. Such an assumption, however, calls for a new theory of perception, to construct which several unsuccessful attempts have been made. Professor Montague[1] offers us one based upon the metaphysics of energetics. A material object is a center of inflowing energies. With each form of energy there is correlated a quality, so that an object is not only a group of inflowing energies superposed upon one and the same part of space, but also a system of the qualities correlated with those energies as their reciprocals. It is likewise a center of outflowing energies, some of which impinge upon the termini of the nervous systems of animals; each stimulus having correlated with it a specific *quale*. The quantity and quality of the stimulus express the nature of the object which is its source except for such modifications as may have been imposed by the medium traversed. Now an externally observable current of kinetic energy in the afferent nerve passes or

[1] Articles in *Journal of Philosophy*, Vols. II, p. 309; IV, p. 374; and in *Essays in Honor of W. James*, 1908, p. 105.

seems to pass into a sensation. What really happens is that the kinetic energy of motion is transformed into an equivalent potential energy of stress at the nerve center. Whenever the potential energy at a nerve center is greater than the inflowing energy which is its cause, then there exists a conscious quality of that energy. In the perceptual field of objects, however, to which sensations give rise, the case is quite different. These sensations when connected in one system induce a center of stress or ego from which their several energy currents are reprojected as a field of perceptual objects and out into the same real space and time in which their physical causes are located. The perceived object is identical in substance (because composed of the same energy) with a part or aspect of the physical object, viz., such part as has directly, in the form of a present sensory stimulus, or indirectly, in traces of past sensations, flowed into the organism. This simply means that energy flows from the object into the organism, is transformed into potential energy at the nerve center, becomes conscious of its quality, is connected with other such conscious energies into a system, and with these reflected back to its source. The qualities march into the brain, become conscious, and then march out again. But is the quality of the perceived object identical with the quality of the material object? It is probable, we are told, that the specific quality correlated with the ether wave-length that produces perceptual red, when the optic nerve current which it arouses is transformed into potential energy in the visual nerve center, is itself something as different from red as the odor of musk. At the same time, we are told again, it must be remembered that our perceptual activity, when directed to an object, contributes to the nature of that object just as truly, though, of course, not so largely, as the sun's shining upon it. The attributes which we ascribe to it do forthwith belong to it. Hence it would seem, according to Professor Montague's theory, that the felt quality of red, red with consciousness inhering in it, is reprojected outward in a way reminding one of some forms of subjective idealism—only, being also a stream of energy, it causes a modification in the original source of the energy from which it sprang. In this view we get

the qualities given in perception reflected back into the universe of flowing energies by rather heroic means; but even so, it would appear that we perceive only the qualities which we put into it —perceptual red is probably different from the real red—and that the qualities, as we perceive them, cease to exist when we shut our eyes. The complex of qualities, conscious of themselves, given in perception, is the result of the interaction of inflowing energies and organic energies; the result is *a* real energy that lasts as long as the interaction lasts; what *the* real energies are, apart from their relation to the perceiving organism, perception cannot tell us. Perceived objects are true parts of the material world, but they are the intermittent products of the relation between particular organisms and the world.

Professor Woodbridge's theory[1] tries to bring us nearer to the real object than the preceding hypothesis. There are specific qualities or differences in the world, but these would not have their specific effects if it were not for the sense organs: the sense organs are the specific means for rendering the differences effective. Eyes would be useless if there were not something to see. The very purpose of the sense apparatus is to realize interactions between the organism and its environment which otherwise would not be realized. The bare existence of such interaction is the fact of sensation. Hence if we had other and more adequate instruments, we might have a greater variety of sensory content, and if any part of the sense apparatus were lacking, the sensory content would not be so rich in qualities: the so-called secondary qualities, say, might be absent from the objects given in our actual perceptions. But there is no consciousness in sensation as such. If our sense organs existed in isolation and remained only disconnected media for specific causation, the world might possess all the variety we ascribe to sensation, but contain no more consciousness than exists in a camera when the sensitive plate is exposed. It is only when the sensations are connected and co-ordinated by means of the nervous system that what the organism undergoes in interaction

[1] Articles in *J. of Phil.*, II, p. 119; VI, p. 449; in *Psychological Review*, Vol. XV, p. 397; Garman volume, p. 137; James volume.

with its surroundings is made into a conscious experience. The organism with its sense organs and nervous system provides a center for the interplay and co-ordination of the varied differences in the world without allowing these differences to lose their specific characters.

According to this description of the mechanism of sensation, the sense organs are means of rendering effective the specific differences existing in the world, of enabling them to have their specific effects. Specific effects upon what, we ask? Evidently upon the sense organs themselves, for "it is the eye that sees, the ear that hears." This can mean that there is reproduced in the organ something analogous to the specific difference outside, say, a retinal image in the eye,[1] in which case our sensory content would consist not of the things themselves, but of the analogous reproductions of these things upon our sense organs. If we define sensation as the bare existence of the interaction between the organism and the environment, then we surely cannot say that the perceived object, the patch of blue, is numerically identical with the real object, the physical and physiological events in question, that is, that the complex of qualities given in perception (the patch of blue) is numerically identical with the complex of qualities which is a true part of the material world (ether and eye activity).

Besides, unfortunately for this theory, the differences do seem to lose their specific characters: in the color-blind man, for example, the specific difference which we call red will not operate, or make itself effective; not only that, his sensory content will be blue or yellow, qualities not identical with the qualities which are a true part of the material world. Sensations would therefore seem to be qualities added to the real world in consequence of the interaction between the real world and the organism. It is true, when the color-blind man becomes conscious, that is, when meaning is added, he will come face to face with his sensory content as it is; in so far the perceived object will be a real fact in the world, but it will not be the red fact which his normal

[1] See the works of the German realist E. L. Fischer, *Erkenntnisstheorie*, and *Die Gesichtswahrnehmung*. *Cf.* also, Schwarz, *Das Wahrnehmungsproblem*.

neighbor perceives and which is said to exist independently of any perception: it will cease to be when organism and environment cease to interact. And if the coöperation of organism and environment *is* the fact of sensation, there is every reason to suppose that qualities are added, even in normal sensation, which disappear with the interaction. Further additions would seem to be made when the sensations are connected by means of the nervous system, so that the perceived object would neither completely agree with the sensory content nor with the specific differences in the world, from which we started.

It may be said that in this case the specific sense apparatus does not work properly, that the specific difference in the world cannot make itself effective, but that it is there none the less. This explanation may be acceptable on the ether theory, but it will fail if we declare that the object is exactly what it is perceived to be; how can what is red be also blue or yellow? To place the blame on the apparatus or on the physical media in this case shows the dependence of the sensation on organic conditions which not only make manifest the real qualities existing in the world, but somehow seem to affect these qualities.

The realist can answer that after all we do not perceive the things as they are in isolation or independently of one another, but only in their mutual relations; and that when we perceive them that way we perceive them as they really are.[1] The objects seen are seen only through the coöperation of ether waves and the organism; this coöperation is actual, hence the objects are seen as they really are. To apprehend the book is not to know something in isolation, but to know it in its relation to ether and organism. If this means that the blue book we see *is* the interaction between a thing, ether, and organism, we are identifying two entirely different things. It is possible to say that object, ether, and organism in interaction *produce* in the object the colored surface, and that we apprehend directly that colored surface; but this view makes the colored surface relative to the organism and implies that such surfaces would cease to exist

[1] See A. Wolf, "Natural Realism and Present Tendencies in Philosophy," *Proceedings of Aristotelian Society*, 1908–09, p. 141.

as they are with the disappearance of organic beings from the world.

The fact is we can identify the complex of physical qualities given in some particular actual perception with the complex of physical qualities which are a true part of the material world, only so long as we ask no questions. What is given in perception is as real as anything can be, and will be accepted as such until the object begins to change under our scrutiny or otherwise, and we begin to inquire which of the many forms in which it presents itself is the object as it *really* is. And even here it is possible to take what is normally and universally given as our real world and come to rest. But as soon as we attempt to explain the origin of perception, to construct a theory of perception, on the basis of an organism and an environing world, perceiving becomes a relative affair. We can speak of the real object as directly given, but this object will be relative to another more fundamental reality, the *truly* real,—energies, molecules, ether waves, or what not,—which is not given in perception. But even if it were so given, the old problems and difficulties which trouble us now would still recur. We should still go on asking whether the object as given is *the* real object, what it would look like if nobody looked at it, and so on. We should imagine a case of pure looking, a situation in which pure object and pure perceiver meet, as Plato imagined the pure soul to meet the pure ideas face to face; and go right on calling our ordinary perception seeing through a glass darkly. Besides, we can always think of the object as further analyzable, and we do not stop until an ideal object is reached which is used as a standard for judging the real, that is, the perceived object.

But even if we disregard the theories of perception, based as they necessarily are upon some theory of the world, and limit ourselves to our experience as we find it, we cannot say that the complex of physical qualities given in some particular actual perception is numerically identical with the complex of physical qualities which are a *true* part of the material world. Using a figure of speech of which new realists are fond, we may affirm that the momentary light of perception does not reveal the object

in its completeness and truth. The true parts of the material world are not presented in a particular momentary perception; our momentary perceptions are not complete and free from error. The true object is not *gegeben* but *aufgegeben;* it is the object of our search. Moreover, the true object is not a mere isolated object; as a true part of the material world it is in relation with other objects; indeed, the world is an inter-related, interacting world, and there is nothing in it that stands alone. If we succeeded in isolating a part of what is given from its connections, and staring at it as we might imagine an infant or semi-comatose person to stare at it, we should not have a *true* part of the material world; true parts of the material world do not exist abstracted from the rest of the world. In momentary perceptions we get a fragmentary world, often a disconnected world; we do not get everything at once, we do not get all the qualities, all the relations, and we do not always get them right, as the experience of everyday life amply shows: if we did, what would be the use of the whole apparatus of scientific observation? The world as perceived by the infant is not the true world; there is both more and less in this than may be given in any momentary perception, and we approximate the true world in developed perception, by perceiving it in the light of past perceptions, that is, by interpreting it.

This naturally leads us to inquire into the question of consciousness as a factor in the perceptual situation, the factor by virtue of which the perceived object differs from the unperceived object. What is the positive nature of the difference, it is asked, between the status of a given object at those moments when it figures in some particular individuated stream of perceptions, and its status at those moments when it does not figure in that stream? The answer to this question will depend upon the answer given to the other question. To decide what consciousness adds to the status of the unperceived object we must have some notion of what is meant by the unperceived object. We may dogmatically declare that the object perceived *is* the object unperceived, numerically identical with it; that the complex of qualities given in some particular actual perception is a true part of the material world; that it goes right on existing as it is

independently of any perception, that is, whether perception shines on it or not. In that case, of course, there is no difference between the object, as object, in the perceptual situation and the object out of it, though there may be a difference in the two situations as a whole. We may say the object figures in different contexts; in the perceptual situation it stands in different relations from the relations in which it stands in the non-perceptual situation. It slips in and out of consciousness undefiled, untouched, unchanged; or rather, it stays what and where it is, consciousness simply turns its light upon it. An ideal spectator, observing the scene, would tell us: I see an object variously related with other objects, many of which affect and are affected by it; and I see that self-same object in relation with thought, feelings, and volitions, which do not affect its qualities or other relations in the least.

Let us see how some of the more radical thinkers deal with this part of our problem. It is argued that there is no difference between the perceived and the unperceived objects. Perceptions are pure natural events, not cases of awareness, and apprehensions, says Professor Dewey; the plain man does not regard noises heard, light seen, etc., as mental existences or as things known; they are just things. His attitude to these things *as* things involves their *not* being in relation to a mind or knower. Seeing is not knowing; 'seen' involves a relation to organic activity; the joint efficiency of the eye-activity and of the vibrations of ether condition the seen light.[1] According to Professor Montague, as we have seen, qualified energy flows from the object to the organism, is transformed into potential energy, becomes conscious of its quality, is connected in the brain with other such conscious energies, and with these reflected back to its source. We are conscious of quality in sensation: the quality felt and the feeling of it are inseparably blended. Perception is an organic activity by means of which energies are modified, made conscious, connected into a system, and turned back to their source. For subjective idealism, objects inhere in consciousness; for Professor Montague, consciousness inheres in its objects, which belong to

[1] "Brief Studies in Realism," *Jour. of Philos., etc.*, Vol. VIII, pp. 393–546.

the spatial-temporal system of nature. At the same time it is also a relation existing in a material nature along with other relations, describable ultimately in terms of basic relations of space and time. The perceived object is the result of the interaction between organism and environment; consciousness is a by-product of the same interaction. Professor Woodbridge tells us that sensation is a natural event, the bare existence of specific interaction brought about by means of a specific sense organ: it is the eye that sees, the ear that hears. But sensations are no more knowledge than the eclipse of the moon is knowledge. They account for the sensory content of experience without the addition of any faculty or power of sensibility, simple apprehension or awareness. In order, therefore, that what we are wont to call sense qualities may exist, consciousness would appear to be unnecessary. These sense qualities become indices of a variety of possible reactions in the organism and are thus connected in the relation of implication. It is then, when sensations are connected and coördinated by means of the nervous system, that what the organism undergoes in interaction with its surroundings is made into conscious experience. That is, when sensations are connected by the nervous system in the relation of implication, consciousness, which is a relation of meaning or implication, arises. When the necessary physical and physiological conditions are fulfilled, consciousness appears, full-fledged, like Minerva springing from the head of Jove: we not only become aware of the object, but of the meaning of the object; we cannot become aware of the object without at the same time becoming aware of the meaning of the object. If objects were in my consciousness, but utterly devoid of meaning, I should not be aware of them.

Now what Professor Dewey calls perception, the pure natural event without awareness of consciousness, is not what we ordinarily understand by the term: seen light of which nobody is aware is not what we mean by seen light. Sooner or later, these natural events will have to become conscious in Professor Dewey's system, and they do become conscious under a different name; instead of being perceived they are *experienced:* to give a just

account of a thing is to tell what *that* thing is experienced as. If we take Professor Dewey's notion of perception as a natural event without awareness literally, we shall have to say that a given object never figures in any particular individuated stream of perceptions, because there is no such stream; the given object simply *is*, and our second question is just as artificial as our first. It is true, as Professor Dewey declares, that consciousness is not merely cognitional or logical, that it is also emotional, esthetic, and morally practical, that, therefore, an experience may be existent which is not known, but it does not seem to me to be true that a perceptual experience can be existent, *as an experience*, which does not somehow get itself reported in some perceptual stream. The 'de facto presence in experience of a discriminate or outstanding quale or content' is a case of knowledge, not in the sense of logical or adequate knowledge, but in the sense of awareness, or whatever other harmless name we may choose to indicate the fact that such an experience is not an unconscious brain event. For Professor Montague, too, perception is after all a consciousness of qualities; indeed, if we carry out his thought, we find that the given object is always conscious, that consciousness is born at the very moment the sensory content is born. For Professor Woodbridge, what we should call perception in our psychologies is a highly developed process: it is awareness of a fact, and awareness of a fact is awareness of it as meaning something. Consciousness arises the moment the unconscious sensations are connected in the relation of implication by means of the nervous system; wherever, however, the sensory content is not connected up, the given objects (the sensations) exist, but they do not exist as they exist in consciousness, namely, connected in the relation of implication.

In the case of all these thinkers, perception is always, explicitly or implicitly, a biological process accompanied by consciousness; consciousness is a by-product of the interaction between organism and environment; the sensory content is, explicitly or implicitly, similarly dependent, to some extent, on this relation; and consciousness is a harmless looker-on. According to Montague and Woodbridge, the sensory content is connected and coördinated

by the nervous system, which also makes additions from its personal history to the result. Starting out with a naturalistic metaphysics, these philosophers naturally end with a naturalistic metaphysics: consciousness is an epiphenomenon, inhering in the objects. The object figuring in a conscious perceptual situation differs from the object out of it in the possession of consciousness. The nervous system, for example, in Woodbridge's view, connects the sensations in a relation of implication; consciousness as a relation of implication appears as a kind of unnecessary adjunct; why it appears no one knows; the connections are not conditioned by its existence; its existence is conditioned by them. Consciousness looks on; there is nothing else left for it to do. The real problem of perception here becomes a biological one. The question as to the difference between the status of the given object figuring in an individuated stream of perceptions and its status when it does not figure in that stream will have to be answered in biological terms. And so far as I can see from the accounts of the writers discussed, factors enter into the biological perceptual situation which depend on the nature and personal history of the organism, which means that the object with which the perceiver comes face to face bears the impress of his own nature and life history. Translated into terms of consciousness, this will mean that the object figuring in the conscious perceptual stream is interpreted, apperceived, and that we get more than a sensory content, more than an isolated piece of pure experience.

The biological theories all point to the view that the object given in perception never appears in isolation, that it is never out of relation to an organic being. Organic perception is so complex, so many functions are involved in it: actions and reactions and interactions, that it is more appropriate to speak of the perception of an object than of an object of perception. Examination of our conscious perceptual experiences reveals a situation similar to the one suggested by biology. However we may explain the machinery of perception, the nature and condition of the perceiver have something to do with the result of the process. The object, we say, looks different to different

perceivers at the same time and to the same perceiver at different times; a thing located in the same place, or otherwise identifiable as the same thing, is not quite the same thing; the complex of qualities appearing in one situation is not quite the same as that of another situation: there is likeness and yet there is difference. And so too we cannot talk of a perceived object as an isolated object, out of its relation to a conscious being. The object must be given or presented, presented to a self; some one must be aware of it, experience it in the way of awareness; it must somehow get itself reported. Perception is not a mere natural event, but the perception of a natural event, the perception of an event as natural, as objective. It is knowledge in the sense that something is presented for inspection. Being that is not presented may slumber on in the lap of reality till doomsday; unless the light of consciousness falls upon it, it is as good as nothing for us. To be aware, therefore, means to be conscious. But can there be awareness without further functioning of consciousness, that is, can there be mere awareness of objects and nothing else? The infant in the first months of infancy, the semi-comatose person, and even the wide-awake adult at times, may have experiences closely bordering on such states of mere awareness. However that may be, in our ordinary adult perception, awareness is a more highly developed process, or perhaps better, other mental functions enter into it. Objects are identified, recognized, assimilated, discriminated, felt as continuous with one another, held together in a unique way of felt togetherness, attended to, apperceived, suffused with meanings, judged; emotional and volitional elements play a part in the total result. The fact is, in perception the entire self is more or less in action. Physically and physiologically speaking, perception is the entire organism in interaction or relation with its environment; we cannot single out one particular element in that complex situation and call it the physical or physiological counterpart of the process of perception. No more can we, in speaking of perception as a mental event, abstract the so-called perceived object from the functions involved, in the hope that we may in this way get at the core of being. A perceived object cannot be torn entirely out of its

relation with a perceiving subject. Perceiving an object is an indivisible activity, which we can afterwards analyze, according to our purposes, but not with the idea of discovering the object exactly as it would be apart from any perceiver. We cannot set up the so-called pure experience of the infant, "the original flux of life before reflection has categorized it," as the aboriginal object, because we do not know what that big buzzing blooming confusion is. The only way we can form a picture of the original flux is to abstract from the adult perceptual situation; and each theory will get out of that and put into the pure experience exactly what it needs: no pure infant has ever failed to live up to what was expected of it by its theory.

It is possible to say that an object figuring in some particular individuated stream of perceptions also figures outside of that stream, but not that it always figures in both situations in the same way, that is, possessing all and the same features. Within a continuing perceptual stream it differs according to the presence or absence of attention, discrimination, selection, apperception, and interpretation; it may even contain characteristics which contradict each other. Which of these qualities shall we think of as existing independently of the perceptual stream? If we say all of them, are we not saddling ourselves with a chaotic world? If it be held that one and the same object is present, but that it may be inadequately perceived, the question at once arises as to what the *adequately* perceived object is. One of the objects must be chosen as the representative of the others according to some standard or ideal object actually experienced or constructed in the imagination. This would make it necessary to account for the *inadequately* and *falsely* perceived ones as somehow dependent on the perceiving process; perception can give and perception can take away. Besides, the question would always arise as to the standard object itself: Have we reached the *truly* real? We might choose as the standard the pure experience of the infant, the normal and social object, or the developed perception of the specialist; but the question of the truly real would persist: could not better means of perceiving give us a different object? It might be said that all the char-

acteristics normally perceived are real, exist independently of perception; the one object is present in all the perceptual situations in which it figures, with varying characteristics; every one of them is as real as any other. The one object is many things, has many qualities; some of them figure in the particular perceptual stream, others not; but all of them exist independently, outside of the perceptual stream, just as they are; all of them are true parts of the material world. The obstacle in the way of this view is the fact that the object reveals not merely more characteristics but contradictory ones in different perceptual situations: the staff in the pool cannot be both straight and bent. Most of our difficulties are removed if we assume that the mind has something to do with the way in which the object figures in the perceptual situation. We may say that in the perceptual situation an object is revealed, made manifest, its qualities are brought out, and that this is the work of consciousness. But we must also say that much that appears belongs to the mental realm, is read into the object, sometimes truly, sometimes not. This does not mean that the mind alters the object or that it creates the object out of nothing, or that the object creates a picture of itself in the mind, or that the object lies imbedded in the mind. All we can say is that a conscious organism perceives a real object in a certain way, according to the mental and physical factors involved. How it is possible for us to perceive at all, no theory has yet been able to tell.

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# DESCRIPTIVE AND NORMATIVE SCIENCES.[1]

THE general division of sciences into descriptive and normative has long been one of the commonest devices used in classification, so much so that it has become almost traditional to refer to it even in the elementary text-books of logic and ethics. There obviously is a great difference between such sciences as physics on the one hand and ethics on the other, and the distinction clearly turns in some way upon the place of norms or values in the two. Ethics is possible only because men judge some conduct to be good and other bad, whereas it seems as if there might be a science of physics even if objects never were classified in this way. It is quite natural, therefore, that ethics and other sciences that imply valuation should have been called normative, and that the sciences which approach their subject matter with a more disinterested attitude should have been called descriptive. These latter sciences, it is said, attempt to state merely *what is*. The laws of physics, for example, are statements of uniformities that occur and recur in the existing and indestructible world of matter. Its subject matter is sheerly existent, and as such it is neither good nor bad. If its objects do in fact serve a useful purpose, an art may be created depending upon the science, as engineering depends upon physics and other sciences, but this use is extraneous to descriptive science as such. The most destructive catastrophe in nature,—the volcanoes, earthquakes, and hurricanes,—are as orderly, in the scientific sense of the word, as, to borrow Huxley's phrase, the 'sabbatical peace of a summer sea.' Ethics and logic, on the other hand, appear to be of quite a different kind. Their rules are said to state not what is but *what ought to be*. Thinking is correct or incorrect; conduct is moral or immoral. The laws of logic and of ethics, then, must show the norms to which thinking and acting ought to conform, whether they do or not. The normative sciences are evaluative

[1] A paper read before the Philosophical Union of the University of California, December 22, 1911.

rather than factual.[1] But the distinction thus made, simple as it seems, falls at once into a difficulty: What is the source from which logic and ethics derive their norms? If from the norms actually used in thinking and acting, are they not then descriptive sciences? Clearly the stoutest defender of the normative character of ethics does not suppose that ethics creates moral values or can do otherwise than study morality as it exists; but this admission goes far to blur the conception of ethics as a science of ideals.

Objections of this kind have contributed to a wide-spread reaction against the whole conception of normative science. The only really normative discipline, it is said, is an art rather than a science. In so far as logic and ethics furnish a technique for thinking and acting, they are arts; in so far as they are sciences, they are descriptive, as all science must be. The term 'normative science' is self-contradictory. A science, it is said, is purely cognitive and cannot, in its capacity as a science, lay down a rule for action; it deals only with facts and generalizations of fact. Now moral norms and good and bad conduct are existing processes, as are also logical standards and correct and incorrect thinking. It is possible to make these the subject of special and systematic inquiry, and when this is done there arise the sciences of ethics and logic. These sciences are normative only in the sense that their subject matter is composed of norms; their methods are descriptive like those of other sciences.[2]

The tendency at work here is no doubt wholesome. Ethics, especially idealist ethics, has probably had about it too much of what Professor Santayana calls the 'genteel tradition'; and in any case the effort to give to logic and ethics a larger empirical content is always valuable. Whether a science is normative or descriptive, it presumably cannot have too large a store of

[1] *Cf.*, for example, Mackenzie's *Manual of Ethics*, 4th ed., pp. 4 ff.; Sidgwick, *Methods of Ethics*, 6th ed., pp. 1 ff.; Wundt, *Ethics*, Eng. trans., Vol. I, Introduction, Section 1. Among logicians Sigwart takes the rather extreme position that logic is primarily an art; *Logic*, Eng. trans., Section 2. A wide range of references to logicians who regard their science as normative is given by Husserl, *Logische Untersuchungen*, I Bd., Section 13.

[2] See, for example, Simmel, *Einleitung in die Moralwissenschaft*, I Bd., pp. 321 ff.; McGilvary, "Ethics, a Science," *Philosophical Review*, Vol. XII, p. 629.

facts. In many respects perhaps the most valuable work done in recent years for ethics has been in a sense extra-ethical—I mean the many admirable studies in the history and evolution of morality, just as, in many respects, the most useful work for logic has belonged quite as much to genetic psychology or the psychology of cognition. But while the attack of the so-called 'scientific' ethics upon the older conception of the science has had many good results, it has not contributed a great deal to the methodological conceptions involved in the conception of normative science. That science is not an art, and that logic and ethics have a subject matter like other sciences, are indeed true and worthy to be borne in mind, but these contentions of themselves do not go very far toward an accurate logical statement of the principles of these or any other sciences. Even the definition of normative science as a science which has norms for its subject matter is not of much consequence, for it leaves the question of method untouched; and even the most superficial classification of the sciences can scarcely adopt difference of subject matter as its principle. The point at issue involves the question whether evaluation plays an essential rôle in scientific method or whether it is wholly superseded by description, the latter being assumed to be a purely non-evaluative process, and it is to this methodological question that the present paper will be devoted.

The question in this form is most pertinent for methodology, especially at the present time. For, so far as one can estimate a tendency in current philosophy, there appears to be a strong and growing bias toward giving to evaluation a place of central importance in all experience, to regard it, one might almost say, as the very essence of consciousness. Indeed, the problem has run through much of the philosophy of the nineteenth century. When Kant constructed his theory of knowledge, it appeared to him to be essential, for the sake of preserving both the validity of knowledge and the security of morals, that evaluation should be driven as far as possible from cognition. Accordingly, he turned over the world of possible experience *in toto* to the mechanical principles of explanation, while he conceived the moral

will to operate primarily in a world from which experience was rigidly excluded. Valid knowledge was conceived to rest upon the necessary and *a priori* categories, and the categories, being conceived for the most part as ready-made forms of the understanding itself, operated throughout all experience in a thoroughly automatic and non-teleological fashion. On the other hand, moral evaluation was conceived to rest purely upon the reason, and its norms not only could not be determined by experience but might even never be realized in experience. But the distinction was no sooner made than it had to be broken through. Kant himself supplemented the categories with the regulative principles, which he regarded as absolutely essential for the guidance of knowledge, though they could never be constitutive of experience itself,[1] and certainly not the least instructive part of Kant's philosophy is the eternal see-saw by which he tries to maintain and yet to escape from his distinction between the realm of facts and the kingdom of ends.

Nor did the problem perish with Kant. In one form or another the struggle to find a tenable standing-ground between the divergent points of view is the great problem of post-Kantian philosophy. And always as the struggle continued the impossibility of outlawing valuation from human experience became clearer. Nothing in the character of nineteenth century philosophy has been more striking than the extent to which some form of voluntarism has prevailed in it. Not only has it been made the cornerstone of philosophy by Fichte and Schopenhauer and all who followed them, but even with Hegel the most vital of all problems was to find a conception of reason broad enough to include the will and all its works. Kant's ethics was beyond question the weakest part of his system, but nevertheless the primacy of the practical reason has been a sort of philosophical axiom for his successors. The stream has broadened and deepened down to the present time. Pragmatism is founded upon the universality of valuation in all experience, cognitive

[1] On the untenability of the distinction between constitutive and regulative principles, see Albee, "The Significance of Methodological Principles," *Philosophical Review*, Vol. XV, p. 267.

and otherwise. Its attack upon Hegelian idealism has turned upon the adequacy of the latter's treatment of purpose as a logical category; that in some way purpose was essential to knowledge was not in issue. In psychology, as the problem of reasoning came more to occupy the center of the stage, more and more has been made to turn upon attention and attitude and less upon the quasi-mechanical combination and interaction of mental elements.

It is certainly pertinent, therefore, in view of the imminence and persistence of the problem, to inquire whether the ordinary conception of the descriptive sciences as entirely non-valuative is really justified. In order to make the discussion as definite as possible it will perhaps be best to develop it about a typical presentation of the supposed contrast between descriptive and normative sciences, and for this purpose I have chosen Husserl's careful treatment of the question, particularly his discussion of "Theoretical Disciplines as the Basis of Normative Disciplines."[1] Husserl's thesis is that "every normative and likewise every practical discipline rests upon one or more theoretical disciplines in so far as its rules must possess a theoretical content inseparable from the thought of valuation."[2] This thesis is supported as follows. To assert that something ought to be is to judge it with reference to its goodness or badness; to say that 'A soldier ought to be brave' means that 'a soldier who is not brave is a bad soldier.' Such a judgment, unless it is purely verbal, involves a conception of certain qualities which the object must have in order to be good, and every quality which is essential to its goodness can be part of such a judgment of value as that instanced above. But values are relative and comparative; we do not merely judge things to be good or bad but also better or worse, best or worst. In consequence a group of particular norms implies a fundamental norm which defines the place of the subordinate norms in a system of values. The 'greatest happiness principle' in utilitarian ethics is such a fundamental norm. It bears a relation to the particular normative judgments

[1] *Logische Untersuchungen*, I. Bd., ii. Kap., Sections 14 ff.

[2] *Op. cit.*, p. 40.

analogous to that which the number system bears to judgments of numerical relation in arithmetic. The normative science, then, is produced by the attempt to study scientifically a group of normative propositions that depend upon a fundamental norm. The fundamental norm is the principle of unity in a normative science. This marks it off from the theoretical science in which the principle of unity is the regularity of the things themselves. To give Husserl's own statement: "The theoretical disciplines on the other hand lack this central relation of all investigation to the attitude of value, this attitude being the source of a controlling interest in the application of standards. The unity of their investigations and the correlation of their facts (*Erkenntnisse*) is directed solely by the theoretical interest, which is directed to the investigation of things which actually belong together (*i. e.*, which belong together theoretically according to the orderliness of things) and which therefore, as belonging together, are to be investigated together." [1] If these premises be granted, the dependence of the normative upon one or more descriptive sciences is clear enough. The normative judgment depends upon theoretical judgments stating the factual content of the things valuated. These factual connections of qualities belong to the subject matter of some theoretical science. The normative science, therefore, must get its basis in fact from the theoretical sciences. It is a new grouping of facts chosen here and there from the theoretical sciences and brought into a new unity by their relation to some fundamental value.

The preconceptions in this account of the descriptive and normative sciences should be carefully noted. In the first place, the theoretical sciences arise from the theoretical interest, the interest in knowing things exactly as they are and without reference to any ulterior purpose that they may serve. In order to think about a subject at all, interest is of course necessary. But in order to think about a subject theoretically, this interest, it appears, must be of a peculiarly disinterested kind.[2] Whereas all other forms of interest seem to throw things together in a

[1] *Op. cit.*, p. 46.

[2] *Cf.* Simmel, *op. cit.*, p. 321, where a similar position is taken regarding theoretical interest.

merely human and evaluative order, the theoretical interest is precisely what enables us to know the world 'according to the regularity of things themselves.' It is a transparent medium which permits the objective relations of the things themselves to pass over into consciousness. The interest, therefore, is not a factor in the resulting knowledge, or at least it is a factor only by virtue of its complete self-effacement. In the second place, it is assumed that the knowledge, or more broadly the science, which results from the exercise of theoretical interest consists of descriptive statements in which no reference to end or value is implied. Such knowledge states *what is* absolutely; its laws present the relations of things as they are 'according to the orderliness of the things themselves.' The objects themselves, and not their relation to any value, determine what things belong together and what things must be classified apart. The nature of objective reality is the complete and sole determinant of theoretical categories. Let us now examine these two assumptions in order to determine whether they are tenable accounts of descriptive science, and let us begin with Husserl's conception of theoretical interest.

The conception is not really so clear as it seems. No doubt a large number of men are actuated by what may be roughly called a theoretical interest; that is, they are devoted to the pursuit of some science without much thought of the useful application of their discoveries. No doubt also most men feel more or less frequently and more or less strongly the touch of disinterested curiosity. Certainly no trait is of greater human importance than the capacity to postpone action and pursue knowledge in the meantime. But that these facts justify Husserl's inference is not so clear. In the first place, if the question is merely one of personal motive, the scientist's ulterior motive does not appear to have any bearing on the character of his science one way or the other. The chemistry of cement is not less a part of chemistry because it is studied by a man who wants to build houses; whether or not the chemist has such an ulterior motive is a matter of indifference to the methodology of the science. To be sure, he must not let a desire for a given result hurry him

on to a hasty presumption or an ill-founded judgment, but this is no truer of the theoretical sciences than of the normative, or of the arts, or of the most thoroughly utilitarian thinking. All thinking is disinterested in this sense of the word, but it by no means follows that thinking, in order to be good, must contain no factor of purpose or value. The fact that under certain conditions a purpose can produce a fallacy certainly does not justify the conclusion that a purpose always produces a fallacy or that the way to avoid fallacies is to eliminate purposes.

It is a misfortune that this question has so frequently been discussed as if the whole point were to be settled by reference to the purpose or interest of individual thinkers. For example, it was a misfortune that the earlier presentations of pragmatism depended so much upon the reflex arc concept, for this emphasis tied the new point of view to an exceedingly doubtful psychological theory of meaning, and it caused the question to be discussed as a matter of individual psychology more than the merits of the case required. The social aspects of disinterested knowing were alluded to in the discussion but they were not sufficiently emphasized. It must always be borne in mind that, on the one hand, science is a social product, and, on the other, a social institution. The former point has often been insisted upon, but the latter is perhaps the more important in this connection. It means that the sciences have a life of their own, and a function in human experience, that entirely transcends the attitude of individual scientists toward their work or toward life in general. As an existing social institution a science commands the devotion of the individual scientist and dominates his individual purposes exactly as politics may command the devotion of the statesman. In such a case one may say in a figure of speech that the institution has an end of its own which may or may not coincide with the purpose of the individual who, for the time being, is the human embodiment of the institution. The creation of such an institution is a case of social differentiation and the division of labor, and the division of labor is possible only because an ultimate end can be submerged temporarily in the attainment of a subordinate end, or perhaps even be submerged permanently for a given

individual. It is clear, however, that such a submergence in no wise justifies the conclusion that the product of the divided labor is the result solely of the interest of the highly specialized laborer. There is always the further question: What social ends are built into the structure of the institution itself so that they form an ineradicable prius to the purpose of any given individual who maintains the institution? In the case of the sciences this type of criticism cuts two ways. If it shows the danger of regarding cognition as a process in the individual mind, it shows equally the danger of regarding it only as it appears in the institutionalized sciences. The first skirts the precipice of subjectivism and the other wanders in the desert of intellectualism or naturalism.

If we regard the sciences in their broader social aspect, it is clear at once how inadequate is the reference even of the descriptive sciences to mere 'theoretical interest.' In the long run no one is content, not even the scientist himself, that science should merely know; it must know something worth while, something that yields a satisfaction over and above that which comes merely from finding it out.[1] Perhaps no critical category is more frequently applied to the judgment of scientific work than that of importance or significance. A result in four decimals may be perfectly accurate, but if the data are such that only two decimals are significant, the additional two are an intrusion and an impertinence. The individual investigation must bear at some point upon the total structure of the science; it must 'make a difference' to those who care about that kind of investigations. If it does not, it may be accurate to a nicety but

[1] A singular example of the way in which this aspect of science can be recognized in set terms and yet relegated to a place of insignificance in methodology can be found in Royce's "The Sciences of the Ideal," an address delivered before the Division of Normative Science of the Congress of Arts and Science at the St. Louis Exposition in 1904, Report of the Congress, Vol. I, p. 151. Royce here denominates philosophy and mathematics 'sciences of the ideal,' because they rest upon free construction rather than upon empirical data. The free construction is limited, however, by the condition that "the exactly stated ideal hypothesis . . . must possess . . . sufficient intrinsic importance to be worthy of scientific treatment" (p. 154). It is impossible to withhold the comment that the qualification is more important than the thing qualified.

it is not good scientific work. It may be objected, however, that the significance in these examples may be significance for a purely theoretical interest. It may, of course, precisely because the science as an institution affords a norm by which the value of the individual investigation may be at least roughly measured. But the science itself is always being judged at the bar of human life. No science could persist for a decade that did not possess a human interest of some sort; that did not appeal to impulses other than disinterested curiosity and touch values other than those of abstract cognition. When, therefore, the scientist attacks a purely theoretical problem, he is working within a field already conceived to have value. The return in value from any given investigation, or even from the whole science, may be unexpectedly large or unexpectedly small, for values themselves are always growing or shrinking, partly as a direct outcome of scientific results.

It ought to be clear that this conception of science is not equivalent to the philistine demand for useful results; it merely points out the actual relation between cognition and value and does not in any way prejudge the question as to what ends are really the most valuable. In essence it means only that methodology ought to recognize the fact that the 'theoretical interest' is not an isolated and fragmentary part of human nature that works best when it is kept aloof from all other human interests. In order to be a thinker a man need not become temporarily a disembodied spirit. Thinking originates in the ordinary evaluating experience of the individual and its results return to and reconstruct that experience. The sciences originate likewise in the ordinary experience of the race, which is primarily a struggling, willing, evaluating experience, and they are held always more or less closely to account for their relations to those things which men hold to be worth while. And there is small reason to suppose that these and similar facts are irrelevant to the method of science. To take a single example, the principles of mechanics, interpreted in their literal abstractness, would make every puff of smoke from the stack of a locomotive exactly as important as the turning of the wheels and the pulling of the

load;[1] that is to say, both are equally good examples of the purely mechanical principles on which locomotives are built, but it would be absurd to say that mechanics has been developed, or could have been developed, on the assumption of any such parity of value. The one is part of the working of the machine and the other is epiphenomenon. The conception of a machine is purely teleological and who can doubt that this value, this relation to end, has checked and guided the development of mechanical science at every step?

Husserl's theoretical science, then, the science pursued only from theoretical interest and without reference to the significance of the objects studied, does not exist. Let us now test the second of his two assumptions—the science of the absolutely existent. It will perhaps be well to begin by inquiring precisely what the existent means in this connection, for the term is not perfectly clear. Primarily and in ordinary usage the existent refers to the present time; it gets its content by contrast with that which was in the past but has now ceased to be, or with what may be in the future but has not yet arrived. In this sense the category of the existent has a chronological value and a critical value as against the prejudices which tie men to the past or baseless hopes for the future. The appeal to the actual thus comes, by a natural extension of meaning, to be almost synonymous with the appeal to direct experience. The existent is not only the present but the presented or the presentable, that for which there is evidence of observation. But in this, its most common and most meaningful sense, the existent is clearly not the special object of any particular science. It is the property and tool of all but the end of none, least of all of those sciences, such as mechanics, which are most frequently termed descriptive. The present time, however, is not a mathematical point but a state which can vary indefinitely in duration; it is a second, a day, or a year according to the context. Accordingly there arises a further natural extension of meaning whereby the existent is stretched to include that which always is, and which is therefore in a sense always present. The existent in this new sense is that in which

[1] The example is taken from Bosanquet's *Logic*, Vol. II, p. 184.

the passage of time is irrelevant. The judgment expressing such an existent has lost, so far as possible, the categorical reference to any 'here and now' and has taken on the hypothetical form which expresses permanence of relation, the permanence again being understood not to imply any special reference to the passage of time.

This latter sense is the one which most nearly represents the meaning intended in the phrase, 'a science of the actual.' The phrase really connotes universality—*quod semper, ubique, et ab omnibus*, as the scholastic definition had it. Mechanics is a science of the actual in this sense of the term. Now the question arises whether this type of science excludes all that can properly be called ideals or norms, as is commonly supposed. The degree to which mechanics approximates to mathematics in its character and method, and the frequency with which mathematics is held to be the science of the ideal *par excellence* at once suggests an answer to the question, but it will be well not to make any assumption about the nature of mathematics. Let us rather examine briefly the nature of mechanical laws themselves. There is perhaps no mechanical law, certainly none of great generality and fundamental importance, that can be exemplified and directly verified in actual experience. The conception of the actual as the timeless really reverses the conception of it as the directly experienceable. The character of a mechanical law as applying to the universally existent precludes the possibility of its gaining actuality in the more usual sense of the word. The conditions laid down in the law are so highly idealized that they cannot be actualized. In the practice of the science, this fact is exemplified by the singular usefulness of the method of approximations in formulating its laws. The law states what apparently would be true if a pure case ever were isolated. The law, for example, that a body in motion moves in a straight line unless it is deflected by an outside force, is a case in point. The evidence on which the law rests is simply the greater and greater degree in which a body does so move as interfering conditions are progressively removed. Similarly, the law of inertia, that a body maintains the state of motion or

rest in which it is so long as it is not acted on by an outside force, is proved by the fact that a body does continue to move longer and longer as friction and other losses of energy are eliminated. But the law is not susceptible of direct proof because the experiment cannot really be tried; no body ever is completely screened from outside forces. The law states what ideally would be true in the ideal case.

These laws, then, and others like them, are really expressions of mechanical ideals and they act as norms with reference to the subject matter of the science.[1] They represent the ideals of simplicity and intelligibility which introduce order into an otherwise chaotic manifold of physical actualities. In a certain sense, it is scarcely straining language to say that they indicate what existing physical systems *ought* to be; what they are ideally when irrelevant complications in the crudely actual have been eliminated. Now it is this ideal character that gives the law its value for the scientist. It is not a rescript of the empirically actual. In the now popular phrase, it is a working hypothesis, which means that it is normative for the scientist's experience, controls his investigations, and gives him a reasonable understanding of the way in which bodies may be expected to behave. It is a standard by which the scientist can judge the phenomena he is dealing with.

It may be objected, however, that the term norm as applied to these laws is strained, because, after all, the law really is completely exemplified in every particular case, even though it is impossible to show that this is so. The conditions may be so complicated that they defy human analysis, but there is every reason to suppose that the law holds absolutely and would be found to hold if it were possible to take account fully of every factor. The law is a norm, therefore, only on sufferance so to speak, pending the discovery of more perfect analysis, or only by virtue of the weakness of the human intellect; in itself it is an absolute fact. The objection is really a reassertion of the ontological validity of the scientific law as against the instrumental or

[1] The same conclusion has been stated by Albee, "Descriptive and Normative Sciences," *Philosophical Review*, Vol. XVI, p. 40.

functional conception of it, and this point is too large to discuss here. One can only say that analysis always is imperfect and in the nature of the case apparently always must be. But the objection has significance because it brings to light an essential characteristic of the mechanical point of view, a characteristic inseparable from the timeless nature of its laws. This characteristic is the assumption that every apparent exception to the law must be merely the result of unanalyzed, or perhaps unanalyzable, complexity in the combinations of the phenomena under examination. The assumption is that complete analysis would result in the breaking up of the complexity into a certain number, perhaps an indefinite number, of simple relations identical with those stated in the law. Explanation of this kind, therefore, always tends to conceive phenomena as combinations of self-identical units or homogeneous forces, and it is a postulate that qualitative difference must, so far as possible, be expressed as quantitative relations between homogeneous elements. What cannot be so expressed must be ruled out as irrelevant. Different colors of light, for example, can be symbolized by wave lengths of hypothetical ether vibrations, but the concrete qualitative distinctions thus symbolized are then pushed over into another sphere of existence and left there to be otherwise dealt with, or not dealt with at all, as the case may be.

Now the scientific law of this type is capable of a high degree of exactness, as everyone knows, but its exactness is paid for with the highly stereotyped form which it imposes on its subject matter. Its world is a world of timeless unchanging entities where there can be literally no new thing under the sun. From the point of view of mechanics there can be no change except change of position and direction in a perfectly homogeneous space; there can be no novelty except a new combination of the old elements. Time for mechanics is a homogeneous quantity; all its processes are ideally reversible. Now it is true that objects which can be conceived satisfactorily in this way are pervasive of our experience, yet after all they form only the substratum of it. Men are interested, perhaps most deeply interested, in precisely those phases of things which are irrelevant from the

mechanical point of view. The vast majority of our experiences, I presume, would be hopelessly garbled if we had to conceive them in terms of timeless actualities and as a mere repetition of identities. As Professor James was never tired of insisting, our most vital experiences are those in which time has not only quantity but direction, in which processes are not reversible but are valuable precisely because they bring to the birth something which did not exist before. The present in which we live is always big with the future, and the past to which we go back in history is a time when other men were realizing new and significant values not before known. All history and all evolution are filled with real changes—with just those qualities which, from the mechanical point of view, are irrelevant and indeed inconceivable.

The character of the norm as it appears in the mechanical sciences is the outgrowth of the peculiar form of abstraction to which the subject matter is subjected. What, then, will be the nature of the norm when it is developed with reference to the non-mechanical phases of experience? In general it seems clear that it must take on more and more the character which we commonly attribute to a norm; it must include more and more processes which are essentially evaluative and must take more and more account of ends. I have tried to show that valuation is not absent even from the most completely descriptive sciences, but that in these cases the norm is scarcely intrinsic to the subject matter. It belongs rather to the on-looker who applies his interest to the objects studied. But when one begins to deal with irreversible processes, processes which essentially have direction and therefore tend some whither, one finds that this type of subject matter develops ends, and therefore values, which have to be respected. The laws in such cases become more and more teleological and in consequence more obviously normative than they are in mechanics.

To take a single example, it appears to be quite impossible to define an evolutionary series except by marking out steps or stages which lead toward some final goal, this goal being taken temporarily at least as an end. In order that such a series may

exist at all, the reality of change must be assumed as a datum; change cannot be taken as a mere complication of preëxisting elements without destroying the concept of evolution itself. The existing species must vary, slightly or broadly, indefinitely or orthogenetically, if a new species is to appear. The old type must be broken through, the exactness of its definition must be blurred, or the evolution fails to take place. And once a series of such changes has established itself, each change can properly be said to have value as a means to the determination of the new type; they contribute to an end and this is only another name for value. The continuity of the series is nothing but this progressive creation or modification of value. Naturally the end in such a case need not have practical human value; it has no moral significance perhaps, and of course it need not be an end consciously chosen by the evolving object. On the other hand, the end is not in any proper sense merely the subjective attitude of the human investigator; it is not dependent on the scientist's will in any sense in which the properties of an atom are not so dependent. The end in this case, like the atom, is simply a category of explanation, and it is on quite the same logical basis so far as its validity is concerned. As a matter of fact, the biological sciences are filled with teleological conceptions, as the constant use of such terms as function, adaptation, organism, deterioration, progress, and a host of others like them abundantly testifies.

One further step in the development of scientific norms may be mentioned in conclusion—the case where the subject matter of the science is marked by consciously chosen ends, as in the sciences that deal with human institutions. Here what Professor Santayana calls the 'ideal dimension of experience' comes most clearly into evidence, and the reversible process and the timeless law play an insignificant rôle. Here teleology is not only *de facto* but to a large extent real, and here the values concerned are always human values,—not necessarily, indeed, the values of any given individual or of any special time, but always values that have developed in the course of human history and have in some way proved significant for mankind. These, therefore, are the normative sciences *par excellence*. They not only have values

for their subject matter but their procedure is at least implicitly normative. Thus history, which is in some respects the most inclusive of all the humanistic sciences, cannot be written except with reference to the evolution of value. Not that the historian needs to express his own individual preference for this or that historical character, or that he is primarily engaged in condemning this or praising that; whether he does this or not is trivial and largely a matter of temperament. But his selection among all the innumerable facts that might be chronicled must be determined by the bearing they had upon some valuable outcome, and the sheer fact that he takes this outcome as valuable is itself a process of valuation. In every case the outcome taken as an end is one to which human beings have attached an especial value. And this relation to value is not temperamental but methodological. Again, to return to the case of ethics, it is not enough to say of the moralist that he describes and explains values. He certainly need not exhort—this again is a matter of temperament largely—and he certainly ought not to treat his subject matter from the point of view of his personal preferences, but he must treat it from a generally evaluative point of view. If, for example, he commits himself to statements of this kind: 'Such and such conduct is detestable to normal human beings'—a statement which Professor McGilvary calls 'purely descriptive'[1]—he certainly has gone far beyond mere description. The 'normal human being' in this case is presumably not an arithmetical average or even a type that can be determined exclusively by counting heads. If such a statement has any special ethical significance it must represent the judgment of a certain moral type, and the determination and choice of the type by ethics must be implicitly evaluative. The only way to avoid evaluation is by refusing to select among possible types, and this is precisely the same as refusing to give any systematic account of moral judgments whatever.

The main theses of this paper may be summarized as follows: The traditional distinction between descriptive and normative sciences will not hold. In so far the defenders of 'scientific

[1] *Loc. cit.*, p. 634.

ethics' are quite right, but the reason they allege—that all science has a factual subject matter—does not go to the root of the question. The true methodological reason for abolishing the distinction is not that all sciences are descriptive but rather that all are normative. Cognition is not unrelated to processes of valuation, and relation to value is present as an essential part of the method of all science and as an ever present factor in the control and guidance of science as it develops. The sciences which have appropriated the name descriptive are those which, through the nature of the abstractions they make, come to regard their subject matter as made up of timeless entities existing in an eternal now. Even here, however, the normative character of thought appears in the ideality of the laws which standardize the crude matter of fact. The attempt to treat realities without thus devitalizing them, to preserve their character as processes, brings to light the true rôle of valuation in scientific method, a rôle which is more or less concealed in the so-called descriptive sciences. The sciences which are usually called normative—especially the humanistic sciences—are those in which the place of valuation is too clear and distinct to be overlooked.

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# DISCUSSION.

## CONSISTENCY AND ULTIMATE DUALISM.

In the last number of the Review the Editor has discussed an argument of mine in the January issue, which urged that idealism is consistent with realism. The argument claimed that the fundamental axiom on which idealism rests—the axiom of 'system'—offers no contradiction to the fundamental axiom on which realism rests—that of 'independence'; and that since each axiom represents an irrefutable and ultimate instinctive belief, both views may and must be accepted. The source of the supposed opposition between them was found in the course of the argument to be, that sameness and difference, when united in one point, contradict each other: and the argument tried to prove that they do not, but may exist side by side in closest union without logical injury, and consequently, it was urged, thought and experience, whole and part, yes, even the two ultimate axioms themselves, dwell together in harmony, and with equal rank; each member of these pairs being finally valid in its own right and alone, yet consistent with the results gained from the other member.

Professor Creighton points out that this result, though satisfactory in so far as it removes the supposed conflict between the two parties, nevertheless does not bring us to a complete reconciliation. He says that "the argument should have been carried further to prove that these axioms are positively consistent, in the sense of *including* and *implying* each other" (p. 345). Two enemies are not reconciled merely because they have ceased to fight; to stand side by side in utter indifference is not to be friendly unless the interests of each enter into those of the other, implying them and implied by them. And the 'ultimate dualism' of my result simply leaves the two parties indifferent. Each makes his bow to the other and passes on to what he himself regards as the really important work of philosophy.

This criticism of my argument seems to me, from one point of view certainly, eminently just. If the proposed reconciliation carried no further than to this indifference, it would be, as he says, "plainly impossible to rest" in it. And it is quite correct to say that I did treat sameness and difference, thought and experience, and the two 'axioms,' as externally conjoined rather than as mutually implied and interpenetrating; nor did I, probably, indicate with sufficient clearness

that the proffered solution was of a more than merely negative character. That I did believe it to be so, however, was indicated by some statements which he has noticed (footnote p. 347). While, in short, the argument in question regarded the two sides as externally added, it *also* implicitly claimed that they are to be viewed as mutually penetrating; and if I did not bring out this implication, it was because I failed to realize its importance. It is, I believe, true that thought may move in abstraction from experience, with ideals solely its own and valid of themselves; it is *also* true that thought, viewed in another aspect, implies experience for its filling out. While examining the nature of thought's ideals, I professed not to borrow from experience, though for clearness' sake I used a concrete illustration or two. So might a teacher of elementary arithmetic illustrate addition by counting beads: yet addition may be perfectly defined formally by the logical manipulation of symbols. But the independence of thought does not, in my view, contradict its interpenetration with experience. Again, I believed that the 'whole' and the 'abstract part' may validly be viewed as indifferent to each other, each as if the other were not. But I *also* believed that this indifference is only one side of the matter, and that each may be viewed as implying the other. In fact, it is simply the logical consequence of the whole position taken above, that we should apply the axioms of 'system' and 'independence' to those axioms themselves. *They too* must be regarded as systematically interwoven, interpenetrating, and *also* as independent, externally conjoined. In the article discussed, I applied only the axiom of 'independence' to their relationship. Dr. Creighton has rightly pointed out that I should apply the axiom of system to them (and to all the pairs of the argument). It seems to me however that he would not be willing to apply 'independence' to them, whereas I should apply both. That is why I said above that 'in one sense certainly' this criticism was just. As indicating that the original argument should have proved interpenetration of all the pairs, I believe it to be so: but if he would deny externality, it would seem to me to be unjust to a fundamental axiom of philosophy.

Pure thought implies experience: it is the axiom of 'system' which sees this. But there is also a point of view in which it is self-sufficient; and this is seen by the axiom of 'independence.' Of course I do not mean that we have concepts or meanings without a psychological and sensuous setting (though who knows?) but that its validity commands assent regardless of the character of the setting, and may be regarded as final *in abstracto*. Abstract or pure mathematics furnishes instances

innumerable of self-sufficient systems of pure thought. And it is much the same with sameness and difference as it is with thought and experience. Abstract sameness implies nothing beyond itself: pure Eleatic being offers in itself no contradiction. To it difference is external, though not contradictory. But when sameness is viewed in the light of the axiom of system (that is, as concrete) it is seen to imply difference. And the same holds of difference. To be sure I said in the article here discussed "to the most formal possible thought sameness and difference are meaningless without each other" (p. 63); but that is true only under the axiom of system, not that of independence. Indeed, if we can see that each of the axioms holds with regard to the relationship between sameness and difference, the other difficulties vanish, I think, at once. As all the contradictions turned on those two categories, so do the negative and the positive reconciliation. Even the two axioms themselves must imply each other, when they are viewed by the axiom of system as forming the totality of our knowledge; yet again in so far as they are different axioms, there is an irreducible outstanding element in each which renders them independent and indifferent. As sameness may logically coexist with difference, so may their interpenetration coexist with their externality. The very fact of independence is for the axiom of system meaningless without a deeper systematic unity; but for the axiom of independence each axiom is again independent of the other.

What seems to me novel in the proposed method of reconciliation is that it enables us not merely to accept 'sameness-in-difference' but also to combine the mutual implication between idealism and realism with their externality and indifference. This, which seems impossible to those who solve the contradictions of thought by appeal to experience, is possible to a view which would solve them on their own ground. As far as I know, no one, not even Professor Royce in his too little appreciated 'Supplementary Essay' in *The World and The Individual* (Vol. I), has attempted to do this. But only in this way, it seems to me, can the isolated (whether in the realm of thought or in that of experience) have justice done it; for this method alone solves the contradictions without building solely on the axiom of system. Once we are free to use both these axioms, we can see that they too, like all the rest of our knowledge, apply to themselves, and thus guarantee *their own* mutual penetration at the same time with their indifference. If it is, once more, objected that this last couple, penetration and indifference, are themselves indifferent and not reconciled, the answer is the same as before. These

two again are both indifferent and interpenetrating. This may lead to an infinite regress, but I have in the original article already dealt with that problem. Accordingly, it seems to me that unless there is some mistake in the argument about sameness and difference, we are inevitably led to "an ultimate dualism which no more contradicts monism than system contradicts independence" (p. 53). Indeed, it *is* monism, as well as dualism. If this is a return to pre-Kantian metaphysics—as I quite admit—it is also more, since it includes Hegelian monism as well. It would have been refuted by the post-Kantian movement only if the axiom of system contradicted and excluded externality. If I may be allowed a perhaps irrelevant comment, I do not think we can feel sure that later results in philosophy are better results: progress may be zigzag even when it seems consummative. And it seems to me that with all the undoubted greatness of the German idealism, it may have overlooked something which was vital in the earlier dualism.

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# REVIEWS OF BOOKS.

*Les Fonctions Mentales dans les Sociétés Inferieures.* Par L. LÉVY-BRUHL. Paris, Félix Alcan, 1910.—pp. 461.

This important book will doubtless find many readers; not so much because of its importance, as because it falls within that interesting borderland which lies between the loosely delimited provinces of sociology, anthropology, psychology and the history of religions. It is written from the point of view of the French sociological school represented by M. Durkheim and his collaborators of *L'Année Sociologique*, and its object is to seek precisely what are the directive principles of the mentality of primitive peoples and how these principles make their presence felt in institutions and practices. The author thinks he has been able to determine in what respects the mental mechanism of primitive men differs from ours, and to establish the most general laws of its operations. He thinks that ethnologists and anthropologists have hitherto neglected the social nature of the facts to be explained. This social nature is expressed by the term *representations collectives*. Readers of *L'Année Sociologique* will not need to be told that the word representation as here used does not mean an idea or image of an object, nor a concept. It is not simply an intellectual or cognitive phenomenon, but includes emotional and volitional elements as well. Collective representations are common to members of a social group, they are transmitted from generation to generation, they have their own peculiar laws and do not obey the laws of a psychology founded upon an analysis of the individual subject. They impose themselves upon individuals and awaken sentiments of respect, hope, fear, adoration, etc., towards objects which are regarded as possessing occult powers capable of acting upon members of the social group (pp. 1–3, 27–30).

The mentality of primitive men is 'mystical,' because the reality in which they move is itself mystical. Because they attribute mystical powers to everything, they do not perceive anything as we do. The mystical properties of objects and beings make an integral part of the primitive man's representations. For us, the fact that we do not perceive the presence of certain properties in objects, is decisive. But when the collective representations of primitive men imply the presence of these properties, nothing will dissuade them from it, since it is perhaps the nature of these properties not to manifest themselves

to perception. Hence the primitive mentality is impervious to experience (pp. 30–67). It is also *prelogical*. This does not mean that it is antilogical or alogical, but simply that it is indifferent to logical contradiction. It does not obey the laws of our logic; but the collective representations of the lower societies are connected by what we may call, in fault of a better term, the 'law of participation.' This law is difficult to define, but we may attempt to describe it by saying that in the mentality of primitive men, beings and objects can be, in a manner incomprehensible for us, at the same time themselves and other than themselves; they can emit and receive forces, virtues, mystical actions, which make themselves felt outside of themselves without ceasing to be where they are (pp. 68–80). For example, when the Trumai say that they are aquatic animals and the Bororo assert that they are red parrots, there is no difficulty for a mentality ruled by the law of participation. When an Australian or New-Zealander finds that he has unwittingly eaten of forbidden food and dies from violation of the taboo, it is because he feels himself impregnated with a deadly influence which has introduced itself by a participation into the food, as for example when a common man eats the leavings of a chief's repast.

The essential theses that M. Lévy-Bruhl attempts to establish are: First, that the institutions, the practices, the beliefs of primitive men imply a prelogical and mystical mentality which is oriented otherwise than ours; and second, that the collective representations and the relations of these representations which constitute this mentality are ruled by the law of participation, and as such are indifferent to the logical law of contradiction (p. 425). Primitive men do not abstract, form concepts, generalize nor classify as we do; and the relations between their collective representations are not to be explained either by feebleness of mind, by association of ideas, by a naïve use of the principle of causality, or by the sophism *post hoc ergo propter hoc*.

This bald exposition necessarily ignores the wealth of illustrative material which the author brings to the support of his theses, and in order to bring my comment within reasonable limits, I must make it general. It amounts to this: while the author is quite right in emphasizing the psychological roots and also the collective character of social phenomena, I think he overestimates his own originality and exaggerates the difference between the mentality of the lower societies and our own. M. Lévy-Bruhl develops his theory in opposition to the English anthropological school, 'with its great hypothesis of animism.' He contrasts his own "working-hypothesis," viz.,

the notion of a prelogical mentality, with the animistic hypothesis which is the immediate consequence of the postulate or axiom that the mental functions of superior and inferior societies are identical. How far it is true to say that the English anthropologists simply assume mental functions identical with ours and then ask how such a mentality could have produced the beliefs in question; or whether it would not be truer to say that certain beliefs and practices existing and requiring explanation, they seemed to be best explained by mental functions identical with our own, I shall not pause to inquire. In any case the real contrast is surely between animism and 'dynamism' on the one hand, and between a logical and a prelogical mentality on the other, and not between an English axiom and a French hypothesis. The animistic hypothesis is probably the best one we yet have; but it is not as universally accepted, nor is dynamism as novel a theory, as M. Lévy-Bruhl appears to think.

I can profess only the most casual acquaintance with anthropological literature, but even such casual acquaintance reveals the existence of what M. van Gennep[1] calls *l'ecole dynamiste*, which takes a position clearly against the animist theory and is represented by such writers as Marett, Hewitt, Farnell, Haddon, Sidney Hartland and van Gennep himself. The author's view is that the mentality of primitive men recognizes a *continuum* of spiritual forces—an *Allbeseelung*—but that individualities or personalities, souls, spirits, appear only secondarily. This reminds one of Mr. Marett's 'animatism' and 'pre-animistic period'; and it is interesting to compare his modest and tentative Essays (collected in *The Threshold of Religion*) with the present more exhaustive and sytematic, but no more original, work.

That the theory of primitive man's belief in undifferentiated mystical powers, in an animated nature of mysterious potency as distinguished from Tylor's animism, is not a new idea, is farther shown by M. Lévy-Bruhl's own references and by much that has been written about *mana*, *wakan*, and *orenda*. What lies 'at the back of the black man's mind,' or what mental functions are involved in an animatistic or dynamistic attitude, is another question. It is quite legitimate to distinguish between the content of the consciousness of primitive societies as revealed in their customs, institutions and beliefs, and the mental operations lying behind or involved in these practices and beliefs. The latter problem is philosophically the more important, and it is the one with which the author is primarily concerned. Indeed, for him, the significance of the study of collective representations

[1] *Les Rites de Passage*, pp. 8–9.

and their relations among primitive men, lies in the conviction that this study will be able to throw some light upon the genesis of our categories and our logical principles, and thus lead to a new and positive theory of knowledge founded upon the comparative method (p. 2). M. Lévy-Bruhl attacks the English anthropologists on the ground that they ignore social psychology and the comparative method, and that they assume the unity or essential identity of the human mind in all times and places. Just as they are said to assume the unity of the human mind, so the author in order to account for the genesis of our categories and logical principles by the comparative method, assumes (as a working-hypothesis, at any rate) that they are not present in the mental operations of primitive societies. There is no doubt that he accentuates the difference between the mental functions of the lower and the higher societies. That is the basis of his whole attack upon animism and the essence of his own working-hypothesis.

The difficulty of fair comment here grows out of the difficulty of interpretation, for it is not easy to say how great M. Lévy-Bruhl conceives the difference to be between the mentality of primitive societies and our own. This difference is much more radically stated when he is criticising the methodological presupposition of the English anthropologist than when he sums up results in the concluding section. One's first impression is that he regards the two types of mentality as wholly different in kind, though in the sequel I think it turns out that the difference is one of degree. He says that primitive men do not perceive anything as we do; and again that they perceive scarcely anything as we do. The mentality of primitive men is prelogical and mystical; but prelogical does not imply that this mentality constitutes a sort of period prior in time to the appearance of logical thought. Whether there have ever existed groups of human or pre-human beings whose collective representations did not obey the laws of logic, we do not know; but it is not likely. At any rate, prelogical is not meant to imply that the mentality of societies of the lower type is antilogical or alogical, but simply that it is relatively indifferent to contradiction (p. 79). The author also admits that considered as an individual, in so far as a primitive man thinks and acts independently of collective representations, if that is possible, he will feel, judge, and conduct himself most frequently in the way we should expect. The inferences that he will form will be precisely those which would appear to us most reasonable under the circumstances (p. 79). In spite of the fact that the author is able to heighten the undoubted contrast

between his two types of mentality by taking as one term of comparison the collective representations of primitive societies and as the other term the mentality of our own society as defined by philosophers, logicians and psychologists (p. 21) who for the most part, according to the author's own view, ignore the collective and non-rational element in our common beliefs, I do not feel that his careful and comprehensive study of the mental functions of the lower races impairs, or tends to impair, the validity of the belief in the essential identity of the human mind. Rather, it tends to confirm this belief; for unless I misread him, his conclusion is that logical and prelogical elements coexist in the apparent unity of the thinking subject, and as the former element has always been present to some extent, so on the other hand it will never entirely supplant the latter.

Impermeability to experience is a relative matter and tends to become less in proportion as the demand for logical consistency becomes more strongly felt. But many, if not most, of our own collective representations, or the representations of most unreflective people even in civilized societies, express a mental attitude which is very far from being strictly logical or purely rational, and I believe it would be possible to find among our current beliefs some parallel to nearly everyone of M. Lévy-Bruhl's instances of the prelogical among primitive peoples. The author himself suggests some of these parallels and it would not be difficult to add others. The sailor who will not leave port on Friday, the scholar who will not sit down with thirteen at table, the man who thinks it bad luck to walk under a ladder, and the Christian Scientist who refuses to believe in the reality of pain even while suffering, are quite as impermeable to experience as the savage who still believed in a mystical bond between himself and the alligator which bit off his leg. But the savage explained the incident quite logically from his point of view by saying that the alligator must have mistaken him for a stranger and that the spirits seeing the mistake saved his life.

The objective efficacy of prayer seems to be contradicted just as often as it is confirmed by experience, but people go on praying and believing that prayer will save life or bring rain or avert disaster, on other grounds than that their belief is confirmed by experience. Many people believe in the resurrection of Lazarus or the Virgin Birth, though to others these beliefs seem not only at variance with experience, but just as incompatible with the laws of nature as the savage's belief that a woman has become pregnant by a serpent or a crocodile. But as the author admits, the latter belief is no more

illogical from the savage's point of view than the former beliefs are from the standpoint of supernatural Christianity. The assertions of the Bororo that they are red parrots and of the Huichols that the deer, the corn and hikuli (a sacred plant) are *in a sense* identical, are no doubt less intelligible for us than the statement 'I and my father are one,' and the belief in the mystical union or identity between Christ and the believer. They all alike express the consciousness "*d'une participation vecue, d'une sorte de symbiose par identité d'essence*" (p. 94): but this felt participation or belief in identity of essence in the case of the Bororo and the Huichols does not prove that their mentality is so essentially different from ours that it operates without the principles of identity and contradiction. It is no doubt difficult to rationalize the doctrine of the Trinity without running the risk of falling into some kind of heresy; but this doctrine was formulated by conceptual thinking and Trinitarians see a mystery and not a contradiction in the statement that God is at the same time One and Three. He is 'in a sense' One and Three, just as the deer, the corn, the hikuli, and the cloud 'are in a sense' identical for the Huichols.

"Dans un grand nombre de sociétés de type inférieur, l'abondance du gibier, du poisson ou des fruits, la régularité des saisons et celles des pluies, sont liées à l'accomplissement de certaines cérémonies par des personnes déterminées, ou à la présence, à la santé d'une personne sacrée, qui possède une vertue mystique spéciale." "L'Indien, à la chasse ou à la guerre, est heureux ou malheureux, selon que sa femme, restée dans son campement, s'abstient ou non du tels ou tels aliments ou du tels ou tels actes" (p. 78). The reader can readily supply the modern parallels. To take only one, the Roman doctrine of the influence of 'the Church' upon the condition of souls in purgatory, is an instance of belief in the mystical power of certain persons and ceremonies and in 'action at a distance.' So also the doctrine of transubstantiation is an instance of the prelogical belief that 'a thing can be at the same time itself and other than itself.'

The law of participation and the law of contradiction co-exist, and the influence of the latter is already active first in operations which would be impossible without it, such as numeration and reasoning, and then in those that the law of participation governs (p. 112). When a member of an inferior society thinks 'deer' or 'feather' or 'cloud,' the generic image which presents itself to him implies something altogether different from the analogous image which comes to the mind of the European (p. 136). No doubt it does; but the same thing is true of us. When the scientist who would botanize upon his

mother's grave, thinks 'flower,' the generic image which presents itself to him implies something very different from the generic image which presents itself to the painter or the poet. When the Bororo assert that they *are* red parrots, one is not surprised that M. von Steinen who reports the fact, is loathe to take it literally. M. Lévy-Bruhl takes it quite literally, and says that for a mentality ruled by the law of participation there is no difficulty in this astonishing belief. But, one may ask: Why do the Bororo say they are red parrots? Why do they not say they are white mice or green snakes? The author says the 'savage philosopher' is a myth, and that primitive man does not ask How or Why. Nevertheless, we ask these questions; and an explanation which simply asserts that this collective representation of the Bororo is due to a mystical participation, is no real explanation at all.

The emotional, traditional and collective character of many of our own beliefs is obvious. That the mentality of primitive men is essentially unlike our own and operates without the principles of identity and contradiction and causality, is a totally different and, so far as the present work is concerned, unproved proposition. Apart from the question what mental functions are involved in the collective representatons of the lower races, the idea of mystical participation does not appear to account for all the facts; *e. g.*, totemism. No one would deny that much obscurity still surrounds the origin of totemism. The author's theory is that from the participation directly represented and actually felt, the passage is easy to the belief which affirms a relationship between certain groups of men and certain animals. But is this sense of mystical participation in the essence of a plant or animal prior to, and the ground of, the belief in the relationship, or is the imagined relationship the ground of the represented participation? Among the Aruntas, who are put down with the Bororo as belonging to the lowest type, an animal or semi-animal and semi-human ancestry seems to be recognized. The same thing may or may not be true of the Bororo.

Personally, I do not see that dynamism (as a substitute for animism) necessarily implies a mentality essentially different from ours. Neither do I believe that the alternative between a mentality identical with our own and one that differs from ours, is one which never presented itself to the mind of the English anthropologist (p. 7). Nor, finally, do I find any justification of the author's 'general rule of method' viz. to mistrust the 'explicative' hypotheses which imply a logical and psychological activity like our own, though more puerile and

unreflective (p. 438). In view of his admission that the so-called English axiom affords a 'probable explanation' (with the aid of a little ingenuity no doubt) of almost all primitive customs and beliefs, we may make bold to disregard his warning and still employ the ridiculed hypothesis, not as a postulate admitting of no alternative, but as a working-hypothesis or tentative method of explaining the origin of totemic myths and all other collective representations, until we are satisfied that another hypothesis affords a better explanation of primitive beliefs and practices.

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*Present Philosophical Tendencies.* A critical Survey of Naturalism, Idealism, Pragmatism and Realism, together with a Synopsis of the Philosophy of William James. By Ralph Barton Perry. Longmans, Green, and Co., New York, London, Bombay, and Calcutta. 1912.—pp. xv, 383.

"To avoid any misunderstanding as to the scope of the present book, let me say at the outset that with the exception of the Appendix, it is a critique, rather than a history. I have attempted not merely to summarize, but to estimate, present philosophical tendencies; and my criticism is throughout based on the realistic philosophy which I set forth constructively only at the end" (p. vii). This constructive statement of realism occupies about seventy-five pages, only one fifth of the volume. It deals with general questions rather than with the detailed problems that realism must work out to some sort of conclusion if it is permanently to compete with its rivals. This is what is to be expected of realism at this stage of its development. The volume before us must therefore be regarded as an effort to clear the way for the new philosophy and not as a thorough-going attempt to grapple with the numerous difficulties that confront this system of thought. It deals with tendencies, and with realism only as a tendency. To many readers it will doubtless be a disappointment that the author has not seen fit to give us a different kind of book, but the time is not yet ripe for any great constructive achievement in realism, as it is not yet ripe for any such achievement in pragmatism. When one remembers that a century elapsed between the appearance of Berkeley's "Treatise" and Hegel's systematic development of idealism, and still another century before Royce rounded out the system, the natural impatience to get results over-night will be seen to be an unwarranted demand on time. To compare present-day realism

or pragmatism with present-day idealism is like comparing a babe in arms with a man in the full vigor of maturity. Mr. Perry therefore was without doubt wise in limiting himself to the task which he has accomplished so well.

The value of the different parts of the book is by no means equal, and to the reviewer the Introduction is the least satisfactory of all. Its aim seems to be to secure a favorable hearing for the new view from those whose interest in philosophy is primarily religious. In securing this end the contrast between theory and belief is overdrawn. "Theory does not directly nourish and sustain life, as belief does; because, unlike belief, it does not suit the humor of action. To theorize is to doubt. The investigator must be both incredulous and credulous, believing nothing, and prepared to believe anything. . . . Intelligent living proceeds not by doubting, examining, experimenting, and proving, but by assuming" (pp. 8–9). Is not assumption, far from doubt, examination, experiment, and proof, unintelligent rather than intelligent living?

Naturalism is defined as "the philosophical generalization of science —the application of the theories of science to the problems of philosophy. Both philosophy and science have, as we have seen, a permanent and institutional character. Each has its own traditions, its own classic authorities, and its own devotees. But naturalism proposes to make the institution of science serve also as the institution of philosophy" (p. 45). The science here meant is physical science, which deals with things as bodies. Scientific explanation is description, subject to two controlling conditions: "scientific description must reveal the *general and constant features* of its subject-matter," and it "must be *analytical* or *exact* in its final form" (pp. 54–55). A description of a natural event which conforms to these two conditions is "a law. And it is certain that nothing more is required for purposes of scientific explanation than *the discovery of the law*" (p. 55). The author illustrates this procedure of science by reference to the laws of Galileo, Newton, and Mayer. Now as naturalism is "the assertion that scientific knowledge is final, leaving no room for extra-scientific or philosophical knowledge" (p. 63), it is the philosophy which interprets everything in terms of such laws. There are two forms of naturalism, one in which these laws are regarded as manifestations of some universal substance such as "matter" or "force," and the other "condemns the search for universal substance and first cause as futile. Its last word is a theory of knowledge, in which science is asserted to be final because the only case of exact knowledge" (p. 63). Both

forms of naturalism are vigorously criticized by the author. The conclusion to which he comes is that without prejudice "to the truth of science or to the validity of its methods, without disparagement of the reality of physical nature, or the reduction of it to dependence on consciousness, it is still open to us to conclude that *science is not all of truth*, nor *physical nature all of being*. That which distinguishes such a critique of science is its recognition of science and nature, *as they stand*. They are not partially true or real; they are simply parts of truth and reality. And the other parts, while they do not undo or transmute the fact, may nevertheless put a wholly new face on the total situation. They disprove every claim to the *exclusive* truth of science; and provide a balance that may justify religion" (p. 108).

That religion needs such justification in view of the claims of science is due to the fact that science, when it is erected into a philosophy, endangers the hopes and aspirations of man. "If all being is bodily, and all causation mechanical, then there can be no support for the belief that the cosmos at large is dominated by goodness. Life is impotent; and the aspirations and hopes to which it gives rise are vain. Enlightenment destroys what the heart so fondly builds. Man is engaged in a losing fight. He may 'develop a worthy civilization, capable of maintaining and constantly improving itself,' but only 'until the evolution of our globe shall have entered so far upon its downward course that the cosmic process resumes its sway; and, once more, the State of Nature prevails over the surface from our planet'" (p. 85). To offset this desperate conclusion, it is necessary to believe in "*moral causality*" (p. 341). "There is sufficient ground, . . . in reason and in fact, for asserting *that interests operate*, that things take place because of the good they promote" (p. 342); "religious belief is a confidence that what is indifferent will acquire value, and that what is bad will be made good—through the operation of moral agents on a preëxisting and independent environment" (p. 344). "Were it necessary that the good should triumph only in the breach of mechanical law, then the growth of science would indeed be ominous. But life triumphs in and through mechanical law. . . . If life can have established itself at all, it can by the same means enlarge its domain. And if interests can have freed themselves as they have from preoccupation with immediate bodily exigencies, they can by a further and like progression still further reduce the tribute which they pay to the once omnipotent environment" (pp. 344–5).

The influence of James and also of Royce on our author in his de-

spair over the outlook of what unmitigated science offers is apparent. But whether this method of reëstablishing hope is as effectual as theirs is not so apparent. For both Royce and James set for science limits different from those which our author is willing to set. Although life triumphs in and through mechanical conditions, it seems as a matter of fact to be possible only under certain mechanical conditions, and how long these favorable conditions will prevail seems to be a question for science alone to determine, *if* science be accepted as definitive within the sphere of the mechanical. Should science determine that these favorable conditions are only temporary, then the man who accepts the findings of science as final within its own realm seems to have little ground for hope of life beyond the time when, "once more, the State of Nature prevails over the surface from our planet." To the reviewer therefore Mr. Perry's attempt to reconcile the acceptance of the findings of science as conclusive within its own limits, with the entertainment of religious hopes, seems to miscarry. Either we must accept the findings of science as final and let our hopes be determined by these findings, or else we must challenge these findings when they conflict with these hopes. For science does not deal with things irrelevant to our hopes; the subject-matter of science is the material home of our spiritual life. The optimism that cherishes religious hopes in view of the nebular hypothesis is too happy-go-lucky. The only way of escape open from pessimism to a man on scientific terms lies in the recognition that science is seldom justifiably definitive in its larger generalizations. It is constantly revising its own conclusions. The nebular hypothesis, which sat with so oppressive a weight on the religious hopes of the last generation, is a case in point. Its scientific sufficiency is being seriously doubted now-a-days by scientists themselves, and doubted on scientific grounds. The fallibility of science on matters which come within its own domain, and especially on those matters which concern religious hopes, is the only *scientific* justification for such hopes. The lack of finality of science in scientific matters is its own stimulus to progress and likewise is a sufficiently ample indulgence for legitimate religious interests.

The chapters on idealism deal with "The Cardinal Principle of Idealism," "Objective or Transcendental Idealism," and "Absolute Idealism and Religion." The cardinal principle of idealism "is a theory of knowledge. For the purposes of technical philosophy it consists in a single proposition, to the effect that knowledge is an originating or creative process. Idealism's claims can be substantiated only provided it is true that *to know is to generate the reality*

*known*" (p. 119). "In other words, one cannot conceive things to exist apart from consciousness, because to conceive is *ipso facto* to bring within consciousness. It is to this argument that Berkeley appeals in the last resort, and his procedure is . . . so typcial as to deserve to be ranked with 'definition by initial predication' as one of the fundamental arguments for idealism" (p.129). "It is doubtless true that idealism has had a long and eventful history since Berkeley; and there are many who would maintain that idealism did not begin its history until after Berkeley. But to any one who refuses to permit the issue to be confused, it must be apparent that the theory with which Berkeley startled the world in 1710 is essentially the same as that which flourished in the nineteenth century in the form given it by Fichte and Hegel" (p. 134).

Whether Mr. Perry is fair to idealism is a question that will undoubtedly find varying answers according to the affiliations of the reader. In this review it is obviously impossible to enter into this question. A more interesting question to the reviewer at present is whether Mr. Perry succeeds in escaping the embarrassments of the 'ego-centric predicament.' In the last number of this REVIEW I discussed Mr. Perry's article on this subject and came to the conclusion that in that article he gave no reason to suppose that he was in its clutches. A careful study of this volume leaves me in great doubt whether Mr. Perry succeeds in making his way out of the predicament. If "what the idealist requires is a proposition to the effect that *everything is an idea*, or that *only ideas exist*" (p. 131), it is a very nice question whether the idealist does not have all that he requires when it is conceded to him that "*every mentioned thing is an idea*" (*ibid.*). For we must remember that 'mentioning' a thing is a general term that includes thinking about that thing in any way whatsoever. It would seem that Mr. Perry's philosophy of ideas would require him to say that he cannot think about anything except ideas, inasmuch as so to think would be a contradiction in terms. He speaks of discounting the ubiquity of the ego-centric predicamant (p. 132). Now can we discount what is *ipso facto* counted in the very act of discounting? Or to put the matter in another way: "According to this view," *i. e.*, epistemological monism, "instead of there being a fundamental dual division of the world into ideas and things, there is only the class of things; ideas being the sub-class of those things that happen to be known" (p. 126). How can we believe in any but the sub-class if to believe presupposes thought about the object of belief, and if we cannot think about anything but ideas? The idealist who requires

"a proposition to the effect that everything is an idea" seems on such a showing to be precluded by the realist from getting a proposition to the opposite effect. Philosophy can hardly be a dealing with things we cannot think about; realistic philosophy would surely jeopardize its future by claiming that its realism concerns unmentionables alone. More light will doubtless be thrown on this problem by "A Realistic Theory of Independence" which the author promises (p. 313, footnote 3) to contribute to *The New Realism*. Until the appearance of this contribution the reviewer does not feel competent to criticize Mr. Perry's position further than to indicate the difficulty he finds in it at this point. He ventures to suggest however that this difficulty can be avoided if the realist would distinguish between an idea and its object, and would maintain that a thing does not become an idea when one thinks about it. We could then think about things that are not ideas, and think about them as not being ideas. I refer to a theory of ideas worked out on the line indicated in "The Fringe of James's Psychology the Basis of Logic" (this REVIEW, Vol. XX, pp. 137 ff.).

Pragmatism is treated in three chapters, "The Pragmatic Theory of Knowledge," "Immediatism *versus* Intellectualism," and "Pluralism, Indeterminism and Religious Faith." Mr. Perry stands very close to pragmatism, and while criticizing with great acuteness various forms of pragmatism, he himself accepts the main contention of pragmatism: "On the other hand consider the case of an idea in the discursive sense, an idea *of* something. It is an idea of something by virtue of the fact that it is connected through my plans or expectations with some portion of the environment. And in this case, there is nothing intrinsically either true or false in *a*, or in any relation of *a* to *b*, except that of my intention. Whatever *a* be, whether fact or fiction, it is then true only when the use I make of it is successful; or false when the plans I form with it, or the expectations I base on it, fail" (p. 327).

Naturally the most interesting part of the volume is that which deals with Realism; to this the author devotes three chapters: "A Realistic Theory of Mind," "A Realistic Theory of Knowledge," and "A Realistic Philosophy of Life." It is difficult to summarize any of these chapters. The views presented need for their understanding all the elaboration which the author gives to them. The relational theory of consciousness is exhibited in a very illuminating fashion. What differentiates Mr. Perry's view of consciousness from that of some other realists is his insistence on three points: (1) "that mental

action is a property of the physical organism" (p. 298), (2) that as "mind appears in nature and society, it consists primarily in interested behavior" (p. 300), and (3) that "neither behavior, nor even conduct, is mind; but only because mind is behavior, or conduct, *together with* the objects which these employ and isolate" (p. 303). There seem to be serious difficulties in this conception of mind, but time does not permit discussion of them here.

The exposition of James's philosophy in the Appendix brings together into a single field of vision the various elements which that great Harvard philosopher unfortunately had time to develop only in serial fashion. Coming from one who was so intimately associated with James, it is a welcome and useful service to the history of philosophy.

This review will give an entirely wrong impression of the book, unless the reader bears in mind that I have dwelt mainly on the points that stand out by reason of their questionableness. The lucidity of statement, the keenness of criticism, the freshness of view, all contribute to make the volume a notable contribution to philosophical discussion.

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*Truth and Reality.* An Introduction to the Theory of Knowledge. By JOHN ELOF BOODIN. New York, The Macmillan Company, 1911.—pp. viii, 334.

This book is divided into four parts: "Truth and Mental Constitution," "The Nature of Truth," "The Criterion of Truth," and "Truth and its Object." Part I discusses "Mind as Instinct" and "The Categories of Intelligence." All our fundamental categories are instinctive adjustments. In the development of conscious response to the environment there are three main stages—the sensitive stage, in which the primitive instincts appear; the stage of associative memory, characterized by the secondary instincts; and the stage of reflection, in which the ideals or sentiments come into being. The categories of intelligence represent four levels of intellectual development. On the level of perception we have the categories of space, time, habit, and imitation; on the level of reproductive imagination, those of contiguity, similarity, and dominant interest; on the level of empirical generalization, those of quantity, quality, causality, and individuality or substance. Finally, on the level of idealization we have the higher categories of the intellectual, ethical, and æsthetic realms. The author discusses only those of the intellectual field. The fundamental category here, the feeling of wholeness, expresses

itself in four demands—for unity of inner experience, for unity of outer experience or nature, for unity of social experience, and for unity in the totality of being. To all these categories we must apply the pragmatic test. For example, the soul is substance in so far as we can recognize continuity in its states and can predict its conduct; this is the only practical signification of substance.

In Part II the author takes up, in fresh and interesting fashion, the nature of judgment, the problem of the externality of relations, and the postulates of truth. On the externality of relations he takes a position mid-way between the extreme views. "There is nothing contradictory" in the "conception of internal relations. . . . In every teleological whole" such relations are found, and if "the teleological relation of whole and part is contradictory," truth is impossible (pp. 112 f.). But while it is obviously an error to say that all relations are external, it does not follow that all are internal. It has not been proved that reality is one significant whole. If we follow the leadings of experience, we should be inclined to say that while some relations are internal, others are external, at least for us finite beings.

There are four fundamental postulates of thought. The law of consistency includes the laws of identity, contradiction, and excluded middle. The law of totality asserts that in order to be known, facts must cohere into a whole, at least for us. The law of duality declares "that you cannot transcend the subject-object relation while you remain within the concept of thought" (p. 138). The law of finitude tells us that thought or truth is essentially finite: thought "means the active selecting and assimilating of a datum by an apperceptive system"; and "both the content selected and the system within which it is to be related or defined must be finite in character" (p. 141). These four laws are proved by showing that if you suppose any case whatever in which they do not hold, truth is there impossible. "When the will sets itself the task of thinking," it "accepts or postulates certain norms" (p. 155); and if we are to play the game of thought, we must abide by the rules. But the necessity of these postulates is only epistemological. Ontologically considered, they are hypotheses which can be verified only through experience. We can conceive a world in which these laws do not hold—*e. g.*, "a world of dreamy absorption or even of no experience," in which the subject-object relation would not prevail—but in this world there would be no thought (p. 153).

Perhaps I have failed to understand Professor Boodin's discussion

of the validity of these laws, but in one respect he seems to contradict himself. He says that the postulates are absolutely necessary for our thinking, and that "if we are to know, they must hold for our universe as experienced." But he also says that "from the point of view of reality they must be treated as hypotheses to be verified in the procedure of experience" (p. 152). This is difficult for me to understand. It may be that laws which are necessary for our thought do not represent the structure of reality *an sich*. But if they must hold for all that we experience, how could their ontological validity be either proved or disproved in the procedure of experience? If all that I can know must conform to these laws, any fact which, *if* known, would discredit them, must be of such character that it could not possibly *be* known by me. I do not see how Professor Boodin could escape from this difficulty by urging that experience is a wider term than knowledge; for although this may be granted, we should still maintain that proof and disproof belong to cognitive, rather than non-cognitive, experience.

In Part III perhaps the most important chapter is the one on "Truth and Agreement." Truth is agreement with reality, but there are two distinct modes of agreement: (1) a copying or sharing of the nature of reality and (2) an "instrumental relation of the knowing attitude to its object" (p. 217). Thought is instrumental whenever it deals with something which is immediate—and which therefore suffers violence "in being dealt with reflectively" (p. 217)—and whenever it introduces "systematic arrangement" into "facts which themselves *know* no system." But some objects have "a meaning of their own, . . . which we must acknowledge" (p. 219). In their case truth is a sharing in the nature of the object. Agreement is instrumental when we are dealing with the physical aspects of man's environment; it is sharing when we are dealing with its institutional aspects.

Throughout the book, Professor Boodin's pragmatism reveals itself as very moderate and conciliatory in its character. The position which he takes here is an instance of his constant effort to mediate between anti-pragmatists and radical pragmatists. But I question the wisdom of applying the same term 'truth' to relations so different in character as the author himself asserts these to be. It would seem more reasonable to say that in some spheres of experience we can hope to attain truth, while in others all that we can look for is a sort of substitute, which does very well for practical purposes, but which does not give us the real nature of the object. In one passage the author seems to admit that in the latter cases we have a substitute

for truth, rather than truth itself. "When such sharing is impossible," he says, "we must be satisfied with such artificial or phenomenal correspondence as the uniformity of our perceptions makes possible" (p. 222).

In Part IV there are chapters on "Pragmatic Realism," "The Object and its Contexts," "Metaphysics—The Overlapping Problems," and "The Reality of Religious Ideals." In the first chapter what seems to be a rather vague sort of epistemological realism is supported by the argument that whatever is known, must have a meaning beyond the momentary consciousness of the individual: since "our own cognitive meanings are necessarily finite, and any other type of knowing is necessarily hypothetical, it is difficult to see how any theory of knowledge can avoid being realistic" (p. 253). As for metaphysical realism the employment of the pragmatic method leads to the belief that while some qualities of things exist "as part of our perceptual context," there are others which exist "independent of perception in their own dynamic thing-contexts" (p. 264). The last chapter is a pragmatic defence of the Christian religion. A belief becomes objective when we act on the assumption of its truth and "the environment responds to our action by ratifying our will" (p. 316). Now if man, "in order to attain his highest development" must "act *as if*" the spiritual environment were real, "then the religious ideal must in some degree possess objective reality" (p. 321 ff.).

According to the Preface, Professor Boodin's book "is intended to be used in connection with a course in elementary logic or as an introduction or sequel to it" (p. vii). For this purpose its directness of presentation and simplicity of statement are admirable, but it seems to me to presuppose too much general knowledge of philosophical problems to be very useful to the beginner. But to those who are acquainted with contemporary issues in philosophy it will appeal as an interesting and suggestive treatment of some of the most important of these issues. The effort of the author to mediate between extreme views, although occasionally—as in the discussion of truth and agreement—resulting in some vacillation on his part, is most commendable. On the whole, the book is admirable for its combination of open-mindedness with clearness of thought and frank statement of the author's individual point of view. All who have read it will await with interest the companion volume which is promised, under the the title, "A Realistic Universe."

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*Études de Morale.* Par F. Rauh. Paris, Félix Alcan, 1911.—pp. 502.

The volume consists of four lecture courses given at the Sorbonne and the École Normale from 1903 to 1907. It is the work of some half dozen men who after Rauh's death and in his honor set themselves the task of reconstructing from his notes and those of his students as much as possible of the form and substance of his thought. So far as such work can be successful, they have succeeded.

Of these courses the first and fourth ("Critique of ethical theories"; "Problems of moral philosophy") are methodological and constructive; the second and third ("Patriotism; Justice") are special studies in moral beliefs and applications of the method and point of view developed in the others.

It is not difficult to define Rauh's goal: a concrete, reconstructive technique of moral beliefs; an experimental, plastic, autonomous moral science; a modest moral philosophy. It is, however, difficult to trace the origins of his thought and the *motifs* that cross and recross his argument. In a period as restive scientifically and philosophically as ours, constructive theories detach themselves from a mass of controversy, often express strong but perplexed demands, and give themselves as tentative revisions, chiefly of method. Out of such a situation Rauh's thought develops at a double rebound. He is out of sympathy alike with the metaphysical formalist in ethics and the rabidly objective biologist or sociologist. To rescue ethics from metaphysical dogma and not from scientific dogma is the acme of unkindness; it is curing to kill.

Rauh begins this clearing process by pointing out a number of philosophical and scientific sophisms. The universal, the permanent, the static are assumed to be fundamental values and carried over into ethics; the metaphysical sense in which such terms as *perfect, rational, natural* are used is confused with the moral sense; the *hygiene of the thinker* is confused with that of the moral man and the ideal of a contemplative life applied where it does not fit, to the moral life. With Kant, a valuable analysis of moral experience is damaged because of too abstract and narrow a treatment and because of a logical tyranny for which the categorical imperative with its principle of universality will always remain an outstanding symbol. With Fichte and Hegel there is much *à priori* forcing of facts; the same logical scheme leads the one to a revolutionary, the other to a reactionary view of the state. Biological ethics at the very outset has to choose between an aristocratic or a democratic interpretation of evolution. Certain facts of natural selection, of the rule of the strong, favor the former; others,

such as the strength of collectivism, favor the latter; choosing either ideal and applying it to morality is a matter of onesided and vague analogies. Apart from this initial difficulty, the biologist who explains and tests the moral consciousness in terms of the survival of the fittest imposes upon himself the choice of either a very simple, narrow, crude reading or a vague reading of the facts. There must be a sacrifice of either carrying power or precision. Sociological ethics—in Marxism, for instance—begins with the interpretation of social change and progress in materialistic terms—economic changes, social displacements, inventions, etc., and the assumption that only a thing of weights and measures can be matter for scientific treatment. Recent objective sociologists have avoided this externalism and recognized the influence of ideas, convictions, purposes at every turn of the social process. They strengthen their position by speaking of a collective consciousness or conscience. In this collective conscience they see the sum total of morality. But Rauh accuses them of reducing this collective conscience to middle class standards and social utility values; and as a consequence, of overlooking two important facts: (1) the place of the individual non-conformist conscience, and (2) the fact that in the most advanced as well as the most primitive society there are at work certain æsthetic and moral preferences not reducible to social utility values. There follows an interesting discussion of individualism and its sophisms.

How then is ethics to be liberated from such externalism of method and point of view? By constructing a moral science. Two things characterize a science: a special subject matter and method, and a system of working principles developed, applied and reconstructed by means of the give and take of concrete problems. Moral science has for its subject matter moral beliefs. However heterogeneous in origin, these beliefs have certain common marks. They give themselves as a specific type of reaction to a problem. They affirm incommensurable values in unconditional, invincible terms and from an impersonal point of view. This distinguishes them from æsthetic and prudential values. Like scientific beliefs they seek to place a fact rationally, but they have their own distinctive interpretation of rationality. These beliefs, imperfectly embodied in the substance of social morality, are to be found in public opinion and in the ideas and convictions of single individuals. It is from them that ethics must start. It must study these preferences and working principles concretely and sympathetically. In practice a moral problem is solved when conscience can put the stamp of approval on an act; in ethics

also the approval of conscience is the ultimate. But what conscience? Rauh admits that moral beliefs are many and contradictory. Is then the individual conscience with its intuitive preferences to be the final judge? If so, we are committed to moral impressionism and individualism. That is not Rauh's goal. Conscience must be standardized. The well-informed, efficient conscience is the judge. A painstaking study, psychological and sociological, of the whole situation from which the particular moral problem starts enables it to place its preferences rationally. It must, however, clearly be understood that this rationality is not absolute, for all time; it stands for what in this particular problem commends itself to the honest man of enlightened conscience. All moral beliefs are in reality working principles, must keep in touch with a concrete problem, and must submit to reconstruction. Such reconstruction is autonomous—in the interests of the moral consciousness itself—and plastic.

Rauh in the second and third courses has attempted an application of his method to two problems, that of patriotism and that of justice. He purposely points his discussion with reference to certain live moral problems of the France of to-day: internationalism and nationalism, immigration, international law, race prejudice and the Dreyfus affair, capitalism and the masses, philanthropy, class problems, and socialism. They are live problems before whose complexity conscience halts. To disentangle with minute care the moral strains, the implied social and economic factors and moral beliefs, is the task Rauh sets himself; and thus to furnish the moral reality by means of which conscience rationalizes its intuitive preferences.

That such an *intuitionism with safeguards* represents a very welcome reaction against externalism and formalism in ethics admits of no doubt. Whether Rauh could have worked out his constructive program satisfactorily must remain an unanswered question. He was still feeling his way when he died. It would be unfair to measure a volume of lecture courses by standards applied to constructive work, for here the constructive impulse does not work quite freely and evenly. But of a well-stocked mind and of agile, enterprising and balanced thought we get not a little.

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# NOTICES OF NEW BOOKS.

*Das Problem des absoluten Raumes und seine Beziehung zum allgemeinen Raumproblem.* Von ALOYS MÜLLER. Braunschweig, Vieweg & Sohn, 1911.—pp. vii, 154.

The object of this book, which is addressed both to philosophers and to scientists, is to discuss the rôle and justification of absolute space in physics, and the logical structure of the concept involved.

Part I investigates the problem of absolute and relative motion, from an epistemologically neutral standpoint. This is a standpoint which assumes the *fact* of the subject-object relation, but does not inquire into its nature or reason. This is the point of view of the older physics. Absolute space is here defined as such a space as would permit the ascription of rest or motion (of rotation) to a Neumann (*i. e.*, an absolutely isolated) body. It results that only relative motion (motion with respect to a reference body) is knowable or measurable. This is sufficient as far as pure kinematics is concerned. Not so in the case of dynamics. The principle of inertia is inapplicable unless axes of zero inertia, a so-called inertial system, can be found. This is tantamount to saying that the the motions of dynamics must be referred to *absolute* space, in the sense defined above. This version Müller calls the phoronomic dynamic concept. Such an inertial system is ideal. Practically we can only approximate to it by finding, with reference to the stars, axes that may be taken as fixed, without sensible error. This is the business of the astronomer. Accepting the modern result, that the sidereal universe is a finite system, Müller points out that it constitutes itself a Neumann body, to which we may properly assign motion. But though from the laws of mechanics, its rotation may be determined, its translation is indeterminable, yet not inconceivable. This leads to the further concept of absolute *physical* space, which would permit the ascription of translation to a Neumann body. Such a space possesses a reality of its own independent of bodies. Absolute motion, or motion with respect to space, is hence a limiting case of relative motion. Absolute space is the essential condition of the latter. By vitrue of the principle of superposition, the application of the principle of inertia does not require a knowledge of absolute translation, but only of absolute rotation. The conclusion is therefore reached, that the phoronomic dynamic, but not the physical, concept of absolute space, is essential to a complete and consistent system of dynamics.

Part II now assumes that the correct epistemological standpoint must lie somewhere between naïve realism and absolute idealism. Things as they appear to us are neither wholly objective nor wholly subjective. Their general qualities may be the latter, but there must be some absolute basis in reality for what Müller calls the concrete determination of things. To every relative motion, which is subjective, there must correspond an absolute

motion, which is real. The latter may in itself be unspatial, may consist merely of certain space-factors, as Müller calls them. (This view reminds one strongly of Helmholtz.)

Space is independent of things, but physics everywhere shows the complete dependence of things upon space. Space actually affects them. Müller goes further and suggests that even their very existence may depend upon space. Things may be a sort of "Emanation" of the absolute space-factors.

A strong support for this theory Müller finds in certain recent physical investigations. Kaufmann has shown that the mass of an electron depends upon its velocity. Planck's interpretation of the Michelson-Morley experiment seems to show that the very dimensions of a body depend upon its motion with respect to the ether. At the same time the electro-magnetic theory has shorn the ether of all those astounding physical qualities once thought so essential. There remains but one further step to make,—to identify the ether with absolute space. This would give the most complete and unified view of the physical universe.

In the concluding chapter is discussed the possible utility of the adoption of a Non-Euclidean Geometry. It would remove the antinomies concerning the infinity of space, and would explain the deformation of bodies with their motion, required by Planck's theories.

Two appendices and an excellent list of literature complete the work.

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*Kant's Critique of Æsthetic Judgment.* Translated, with seven Introductory Essays, Notes, and Analytical Index by James Creed Meredith. Oxford, The Clarendon Press, 1911.—pp. clxx, 333.

This work contains a translation of the Preface, Introduction, and First Part (*Kritik der ästhetischen Urteilskraft*) of Kant's *Critique of Judgment.* The translator has contributed to the volume also seven Introductory Essays which are entitled as follows: "Problem of the Critique of Judgment," "Last Stages in the Development of Kant's Critique of Taste," "The Beautiful," "The Sublime," "Interest in Beauty," "Art and the Artist," "The Dialectic."

The translation has evidently been made with the greatest care. The translator has endeavored to find an English equivalent for Kant's technical and semi-technical terms and has used the term chosen consistently throughout. In certain cases this has led to a slight violation of ordinary English usage, as for example the rendering of *beurteilen* by 'estimate' (to distinguish it from *urteilen*, 'to judge') and of *Zweckmässigkeit* by 'finality.' But in these cases the reason for the peculiar usage has been frankly stated in the notes and the unusual sense of the English word explained; the translator has scrupulously avoided the use of these words in their ordinary senses in his essays and notes. All things considered, the advantage of having a distinct English term for each of Kant's terms probably outweighs the awkwardness of using ordinary

words with a technical meaning. The translation, so far as I can judge by comparing random passages with the original, is accurate and to a large extent literal. One naturally compares it with the existing translation by Bernard. Mr. Meredith has given more polish to his English and has succeeded in making his translation more readable than Bernard's, but to do this he has sacrificed somewhat the extreme literalness of Bernard's rendition. It is an open question which of these qualities is the more desirable. For the reader who has no German and who merely wishes to read Kant in translation, the easier English may be the better, but one who desires help with Kant's German may still find Bernard the more serviceable. In any case, however, Mr. Meredith's departures from literalness do not produce inaccuracy, and are undertaken usually with a view to bringing to light the meaning which is more or less concealed by Kant's crabbed style.

The Introductory Essays, as can be seen from the titles, deal in order with the parts of the *Critique* that are here translated; the second essay, however, discusses the origin of Kant's æsthetics and attempts to identify in the published work the book which already existed in manuscript in 1787, and which Kant mentions in a letter to Reinhold under the title of "Critique of Taste." The Introductory Essays are scarcely intended for the general reader or the elementary student of Kant. They do not seek to interpret Kant's æsthetics broadly with reference to the rest of his system or with reference to other theories of the beautiful and sublime. They presuppose a considerable acquaintance with the text and are devoted mainly to discussions of the internal consistency of Kant's views on æsthetics and the interrelations of the parts of his theory. Mr. Meredith evidently feels that Kant's æsthetics has a high value for its own sake and he resents the tendency of standard English works on the subject to regard Kant as an introduction to Hegel (*cf.* pp. xxviii ff.). Without committing himself in regard to the relative merits of the two philosophers, Mr. Meredith very properly suggests that there is a good deal of humor and not a little significance in the fact that "Professor Caird, who wrote on Kant, was a devoted admirer of Hegel, while Mr. McTaggart, who writes on Hegel, is at heart a Kantian" (p. xxix). The result of thus limiting his Introductory Essays to the meaning of Kant is to create the impression that Mr. Meredith takes the machinery of the 'Critique of Æsthetic Judgment,'—the external form which Kant borrowed from the *Critique of Pure Reason*,—a good deal more seriously than most critics have seen any need to do. And while his exposition and interpretation of Kant's argument is excellent, the reader is likely to feel that the discussion moves in a realm of symbols the meaning of which is not very clear. A good many students of philosophy will sympathize with Mr. Meredith's refusal to interpret Kant in terms of Hegel, but they may still wish that he had showed more clearly either the significance of Kant's æsthetic theory as an interpretation of our æsthetic experience, or its value for the criticism and elaboration of other philosophies of the beautiful.

GEORGE H. SABINE.

LELAND STANFORD JR. UNIVERSITY.

*William James and other Essays on the Philosophy of Life.* By JOSIAH ROYCE. New York, The Macmillan Company, 1911.—pp. xi, 301.

This volume is made up of five essays, all of which were written by Professor Royce as public addresses. The leading essay on "William James and the Philosophy of Life" was given as the Phi Beta Kappa oration at Harvard University, while the paper on "The Problem of Truth in the Light of Recent Discussion" was read before the International Congress of Philosophy at Heidelberg. The other papers have the titles: "Loyalty and Insight," "What is Vital in Christianity," and "Immortality." In these essays Professor Royce undertakes to apply and illustrate the idealistic principles set forth in his more systematic writings by bringing them into relation to certain practical problems of life. While the positions maintained in this volume are familiar to readers of his other books, the form of statement is fresh and interesting. Indeed, the briefer and more direct form of presentation of these addresses gives sometimes a more definite form to his philosophical doctrines, while the applications and illustrations which are supplied should help to remove some misunderstandings of the bearings of the idealism which the author professes.

The opening essay is at once an eloquent tribute to Professor Royce's friend and distinguished colleague, and a fine appreciation and criticism of certain aspects of contemporary thought of which James was one of the foremost representatives. Whatever may be the verdict of the future regarding the special form of philosophical doctrine which James advocated, no one can doubt the propriety of linking his name, as Professor Royce does, with those of Jonathan Edwards and Ralph Waldo Emerson as the great representatives of American philosophy. The conclusion with which the address ends, that James's philosophy is something more than positivism, or pluralism; that it is an ethical idealism which recognizes a "Rule of Reason" in man and the universe—may at first sight seem more questionable to some readers. But notwithstanding the length to which James was sometimes carried in his protest against abstract intellectualism, I think that Professor Royce's interpretation is correct. It was against the claims of an abstract or isolated reason that James protested unceasingly; against absolute principles that appeared to him to obscure or supplant the reality of the concrete variety and fluidity of experience. To preserve the latter he was willing, if need be, to repudiate logic and declare himself an irrationalist. But it seems to be a truer estimate of James's philosophy to recognize, as Professor Royce has done, that in spirit and in its best expression it is a demand for a more concrete rationality, a protest against the categories of the Understanding in the interest of the more distinctly vital and human point of view of the Reason.

The paper on the "Meaning of Truth" is more technical in character than the other parts of the book, being a criticism of current instrumentalism. This has lately been brought to the attention of readers of the *Review* by Professor Dewey's reply (Vol. XXI, pp. 69 ff.) which repudiates entirely the subjective or psychological view of experience which Professor Royce ascribes

to the instrumentalist. It is to be hoped that the latter may be able to go on with a discussion which promises to yield significant results. For the points at issue between idealism and instrumentalism are now more exactly located and clearly defined than they were ten years ago, while during these years there has also been progress in mutual understanding, constituting something like a common platform upon which discussion can be profitably carried on. This of course implies that neither party has remained where it was. The instrumentalism which Professor Dewey advocates today requires a broader philosophical basis than the functionalism founded on the 'reflex arc concept.' And the whole emphasis of this volume of essays—the emphasis on will, individual experience, and personal ideals, which is characteristic of the present day, shows clearly that Professor Royce has not hesitated to gain instruction from his opponents.

J. E. C.

*The Educational Theory of Jean Jacques Rousseau.* By WILLIAM BOYD. London and New York, Longmans, Green, and Co., 1911.—pp. xiii, 368.

Dr. Boyd published last year a very useful translation of *The Minor Educational Writings of J. J. Rousseau.* He now gives us an excellent exposition and criticism of Rousseau's educational theories in the light of his social philosophy. It was his first purpose, as he informs us, to make the *Emile* the central theme of his book. This work, "with all its faults," he regards as "the most profound modern discussion of the fundamentals of education, the only modern work of the kind worthy to be put alongside the *Republic* of Plato" (p. 5). "But," he goes on to say, "as I grew more intimate with his writings, I was reluctantly forced to the conclusion, already indicated by Rousseau in one of the last of his Dialogues, that the right method of approach to his theory of education is not through the *Emile* but through his whole social philosophy. . . . Though it is the most detailed and authoritative statement of Rousseau's educational doctrines, it represents only one of the two points of view with regard to the social institutions between which his mind constantly oscillated."

Dr. Boyd's book is a thoroughly sound and scholarly piece of work. He shows us Rousseau's educational ideas in their historical and psychological setting, and thus creates a perspective which enables us to understand the reason for the paradoxical form in which they were often set forth, and also to appreciate what elements are of central importance. The book is no mere summary of Rousseau's doctrines. It is in the best sense a philosophical exposition and criticism of his principles, which will contribute much, not only to a better understanding of Rousseau, but also to an appreciation of the essential greatness of his thought. It is now just two hundred years since the birth of the great citizen of Geneva, and he can scarcely be said to have yet gained the historic place to which he is entitled as the father of modern education.

No one can doubt the wisdom of Dr. Boyd's method in connecting, as he has done, the educational theory with the social philosophy. I venture to suggest, however, that the exposition would have been clearer, and the inconsistencies in the educational theories more intelligible, if he had emphasized the fact that Rousseau represents a turning point in social and political philosophy between the older contract theories, to which in his form of statement he adheres, and the more modern 'organic' view. This is very convincingly shown in Dr. Bosanquet's *Philosophical Theory of the State*, a book to which Dr. Boyd does not refer.

J. E. C.

*A System of Psychology.* By KNIGHT DUNLAP. New York, Charles Scribner's Sons, 1912.—pp. ix, 368.

Professor Dunlap gives as the *raison d'être* of this new text-book on Psychology the belief that there is danger lest the purely analytic method of psychological investigation prevent the proper and final integration and the mind be not appreciated as coherent and unitary. In this purpose he will undoubtedly have the approval of not a few psychologists who in their modes of thought are actuated by philosophical ideals. To the "strictly scientific psychologist" his purpose may seem a clear case of intellectual apostasy. But the question is not so much the desirability of the end he proposes—that we are willing enough to concede—but what is his method and how well has he succeeded?

In the first place, his method does not dispense with a systematic treatment of the usual topics in the general text-book on this subject, and we find, as a consequence, a statement often limited but usually fresh and vigorous, of much that is accepted by all students of this science. He does omit as a subject too complex for cursory treatment, any discussion of cerebral anatomy, but gives nevertheless just about one third of the book to a discussion of the one subject of Sensation. In the second place, and more positively, his method does call for a clear enunciation of belief that looks forward to a certain conception of the ultimate character of the mind. The book while in no sense reactionary is sane and safe and will be eminently useful for those who have had an elementary course in the subject and are interested to go further and desire light upon some of the more theoretical aspects of the science. Concerning the Ego he contends against any form of the 'content' hypothesis, but asserts that we are obliged to assume a point of reference over all content of consciousness, and this transcendental unity of apperception is the Ego. As such it is forever safe from analysis or investigation. Or as the conclusion is phrased "We must bear in mind the fact not only that we can know nothing about the Ego, but that there is nothing to be known about it."

The style is clear and easy. The presentation of his matter is fresh and stimulating.

HALBERT H. BRITAN.

BATES COLLEGE

*Free Will and Human Responsibility.* By H. H. HORNE. New York, The Macmillan Co., 1912.—pp. xvi, 197.

In this book the author does not aim to develop a complete and systematic philosophy of freedom. He desires rather to supply a clear and brief treatise, covering both sides of the free-will controversy, which shall be serviceable as a class-room manual. Judged in the light of its avowed purpose the volume deserves praise. It is lucidly written, some of the life and interest of a real debate are communicated to its pages, and skillful use is made of extracts and illustrations gathered by the author in his wide reading upon the subject. Even the methodical subdivision of the chapters and the treatment of the material under a multiplicity of headings—a feature which may grow wearisome to the general reader—is helpful in a text-book. Defining freedom as the ability to act in either of two or more ways (p. 65) the author throws the burden of proof upon the determinist, asserting that "The determinist supports a universal affirmative proposition; every act is determined; a single exception disproves his case" (p. 68). Accordingly, he first allows the determinist to present his case, follows with a rebuttal of these arguments from the libertarian standpoint and then argues in favor of free-will. In general, the freedom of the will is ably and, for the most part, convincingly defended. Sometimes the reasoning is inconclusive and the pronouncements of the author seem mere dogmatism; as when, for instance, in reply to the deterministic argument from the universality of causation, he asserts that "the law of causation is that every effect has a cause, not that every cause has a cause" (p. 135). In the chapter on Pragmatism and Freedom, the pragmatist's contention is disposed of in rather too easy and off-hand a manner. Indeed, the way the subject is approached in the first two chapters invites loose thinking and hasty generalization—from which the author does not entirely escape. The effort in the first chapter to discover 'analogous issues' in other fields brings to our attention resemblances that are superficial, and, in certain cases, misleading, as when in Biology the theory of evolution from determinate variations is connected with the deterministic theory of will. In the second chapter it is maintained that both in practice and in theory the amount of determinism has decreased and the amount of freedom has increased in the course of human history. This is certainly to neglect the salient fact that the present strength of the determinist theory is due mainly to the growth of natural science and its triumph over animistic ideas of the world.

H. W. WRIGHT.

LAKE FOREST COLLEGE.

*L'Education du caractère.* Par L. DUGAS. Paris, Félix Alcan, 1912.—pp. xi, 258.

In studying the education of character, the author does not assume that such education is possible. The main problem of the book is to show that it is possible and, as a means to this end, to discuss fully what is meant by both education and character. Character is a normal state comparable to

bodily health, differing in different individuals and changing in the same individual in accordance with definite laws. It is determined by a chain of causality of which the will is a part, and it is therefore not fatally determined. The character of an individual is not the sum total of his qualities, but the characteristic unity of these qualities—a unity dependent upon memory and reason. By education is meant not the whole of experience influencing character, but a systematic series of influences planned for a definite end. It must be both formal and material in that it must develop the particular powers inherent in the individual and at the same time harmonize these into a unity of character. If character were fatally determined, that is, if it were not modifiable at all, its education would be impossible. If it were indefinitely modifiable, its education would be dangerous. That it can be changed to a limited extent by such influences as climate and occupation, is shown by the fact that we have typical national and professional characteristics. Since character can be modified only to a limited degree, it follows that its education must not do violence to nature, but must have regard at once for society and for the individual. The education of character is to be distinguished from that of the mind and the body.

The book cannot be called original, since the facts cited are matters of common knowledge and the deductions from them are not new. Moreover, it cannot be called practical, since only the most general concepts are dealt with and no suggestions are given as to means or method. The author himself gives as his purpose to systematize current concepts of character and to set forth his own ideal. He has succeeded in carrying out this purpose in a logical way. Perhaps the greatest value of the book lies in its insistence upon the importance of moral education, and its sharp separation of this from the education of mind and body.

HELEN M. CLARKE.

*The Philosophy of Music: A Comparative Investigation into the Principles of Musical Æsthetics.* By HALBERT HAINS BRITAN. New York, Longmans, Green & Co., 1911.—pp. xiv, 252.

The author of this work tells us that "while the bibliography of music is voluminous, attempts at a scientific, psychological analysis of music, and at a systematic discussion of the principles of musical æsthetics are surprisingly few. . . . Under the circumstances it seemed best to the author therefore to start boldly out, trusting to his psychological knowledge for chart and compass, and to his philosophical training to lead him through the subtleties and half-mystical generalities which for so long have beclouded this particular field of art" (p. vii). He then analyzes the various problems coming under the philosophy of music into four: the psychological analysis of music, the results of this analysis as applied to musical criticism, the relations of music to other fields of human thought, as morality, religion, and education, and the question of the content of music; and after a preliminary survey of the subject of musical form, he proceeds to the psychological discussion of the musical experience.

This he divides into the traditional elements of rhythm, melody, and harmony, and after an analysis of each of these adds a chapter on musical expression to this division of the subject. Throughout all this he seems to want to show primarily that the musical experience is not merely emotional but includes also important "intellectual" elements; owing to the essential correctness of his main contention, at least in so far as is necessary for the applications which he wishes to make, it seems a pity that he is not slightly more definite and precise in his use of such terms as 'intellectual,' 'psychical,' terms which have, for technical psychology, either no meaning through their vagueness or a very technical and hence very precise meaning.

Keeping these two elements in mind he shows, in Part III, that the question of the form versus the content of music is a false division, as all music must have both elements to a certain varying degree; that the art of musical criticism can and should be based on the definite principles of criticism derived from the nature of music as a psychological experience and as a form of æsthetic activity, thus subordinating the instinctive response to rhythm to the more intellectual activity proper to the higher elements of music, melody and harmony; and that music is well adapted to fill a large place in modern life through its great value (1) as a form of recreation, something especially necessary in this period of great complexity of life, (2) as a form of mental training capable of resulting in a type of mind possessed of the ability to make peculiarly delicate discriminations, (3) as a means of developing the finer types of emotional feeling and hence to lead to moral effects; for these reasons then, the author holds that music should be made an essential part of the plan of our education and that this musical education should be primarily not technical, but adapted to develop a fine appreciation of the better class of music in so far as this is possible. This last part of the work is so essentially sane and valuable that we cannot but feel regret that it is hardly more than a mere outline.

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The following books also have been received:

*The Philosophical Works of Descartes.* Rendered into English by Elizabeth S. Haldane and G. R. T. Ross. Two Vols., Vol. I. Cambridge, University Press, 1911.—pp. vi, 452. $3.50 net.

*Kant and Spencer.* By Borden P. Bowne. Boston and New York, Houghton Mifflin Co., 1912.—pp. xii, 440. $3.00 net.

*Essays in Radical Empiricism.* By William James. New York, Longmans, Green, & Co., 1912.—pp. xii, 283.

*Memories and Studies.* By William James. New York, Longmans, Green, & Co., 1911.—pp. 411.

*From Religion to Philosophy.* By Francis Macdonald Cornford. London, Edward Arnold, 1912.—pp. xx, 276. 10/6 net.

*Modern Science and the Illusions of Professor Bergson.* By Hugh S. R. Elliot. London, Longmans, Green, & Co., 1912.—pp. xix, 257. $1.60 net.

*The Science of Logic.* By P. COFFEY. Two Vols., Vol. I. London, Longmans, Green, & Co., 1912.—pp. xx, 445.

*Lectures on Moral Philosophy.* By JOHN WITHERSPOON. Princeton, Princeton University Press, 1912—pp. xxix, 144.

*The Educational Theory and Practice of T. H. Green.* By ABBY PORTER LELAND. New York, Teachers College, Columbia University, 1911.—pp. 62. $0.75.

*Beauty and Ugliness.* By VERNON LEE and C. ANSTRUTHER-THOMSON. London, John Lane, 1912.—pp. xiii, 376. $1.75 net.

*A System of Psychology.* By KNIGHT DUNLAP. New York, Charles Scribner's Sons, 1912.—pp. xiv, 368.

*Association Tests.* By R. S. WOODWORTH and FREDERIC LYMAN WELLS. Princeton, Psychological Review Co., 1911.—pp. 85.

*Prehistoric Man.* By W. L. H. DUCKWORTH. Cambridge, University Press, 1912.—pp. viii, 156. $0.40 net.

*Immanuel Kants Werke.* Herausgegeben von ARTUR BUCHENAU. Band I. Berlin, Verlegt bei Bruno Cassirer, 1912.—pp. 541.

*Aristoteles und seine Weltanschauung.* Von FRANZ BRENTANO. Leipzig, Quelle & Meyer, 1911.—pp. viii, 153. M. 3.

*Kant und die Epigonen.* Von OTTO LIEBMANN. Besorgt von BRUNO BAUCH. Berlin, Reuther & Reichard, 1912.—pp. xii, 239. M. 4.

*Principien des Metaphysik.* Von BRANISLAV PETRONIEVICS. Erster Band. Heidelberg, Carl Winter's Universitätsbuchhandlung, 1912.—pp. xxxviii, 570. Band I and II. M. 16.

*Geschichte der Griechischen Ethik.* Von MAX WUNDT. Zweiter Band. Leipzig, Verlag von Wilhelm Engelmann, 1911.—pp. ix, 506. M. 14.

*Hauptprobleme der Religionsphilosophie der Gegenwart.* Von RUDOLF EUCKEN. Vierte und fünfte Auflage. Berlin, Verlag von Reuther & Reichard, 1912.—pp. 182. M. 4.

*Matter and Form in Aristotle.* By ISAAC HUSIK. Berlin, Verlag von Leonhard Simion Nf., 1912.—pp. 93. M. 2.50.

*Möglichkeit und Widerspruchslosigkeit.* Von HANS PICHLER. Leipzig, Verlag von Johann Ambrosius Barth, 1912.—pp. 72. M. 2.40.

*René Descartes Meditationes de Prima Philosophia.* Von C. GÜTTLER. Zweite Auflage. München, C. H. Beck'sche Verlagsbuchhandlung, 1912.—pp. xii, 269. M. 5.

*Das Problem der Methode bei Descartes.* Von FERDINAND STÖCKER. Bonn, Carl Georgi, Universitäts-Buchdruckerei und Verlag, 1911.—pp. 63.

*Identité et Réalité.* Par ÉMILE MEYERSON. Paris, Félix Alcan, 1912.—pp. xii, 542. 10 fr.

*Contre la Métaphysique.* Par FELIX LE DANTEC. Paris, Félix Alcan, 1912.—pp. 255. 3 fr. 75.

*Fragments sur L'Histoire de la Philosophie.* Par ARTHUR SCHOPENHAUER. Traduit par AUGUSTE DIETRICH. Paris, Félix Alcan, 1912.—pp. 196. 2 fr. 50.

*Devoir et Durée.* Par J. WILBOIS. Paris, Félix Alcan, 1912.—pp. 408. 7 fr. 50.

*Annales de L'Institut Superieur de Philosophie.* Tome I. Directeur, S. DEPLOIGE. Paris, Félix Alcan, 1912.—pp. 705.

*Esquisse d'une Philosophie de la Nature.* Par ANDRÉ JOUSSAIN. Paris, Félix Alcan, 1912.—pp. 197. 2 fr. 50.

*Les Concepts de la Raison et les Lois de L'Univers.* Par EUGENE DE ROBERTY. Paris, Félix Alcan, 1912.—pp. 177. 2 fr. 50.

*Etude sur la "Théologie Germanique."* Par MARIA WINDSTOSSER. Paris, Félix Alcan, 1912.—pp. xi, 216. 5 fr.

*Hegel, sa Vie et ses Œuvres.* Par P. ROQUES. Paris, Félix Alcan, 1912.—pp. 358. 6 fr.

*Introduction à L'Esthétique.* Par CH. LALO. Paris, Libraire Armand Colin, 1912.—pp. ix, 343. 3 fr. 50.

*Pédagogie Expérimentale.* Par J. J. VAN BIERVLIET. Paris, Félix Alcan, 1911.—pp. xii, 335. 7 fr. 50.

*Il Materialisimo Storico in Federico Engels.* Da RODOLFO MONDOLFO. Genova, A. F. Formiggini, 1912.—pp. vi, 355. Lire 5.

# SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mèt.* = *Revue de Mètaphysique et de Morale*; *Rev. Nèo-Sc.* = *Revue Nèo-Scolastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftiche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl.: Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

*Morality as Inter-personal.* E. W. HIRST. Int. J. E., XXII, 3, pp. 298–321.

This essay is intended to be, first of all, a criticism of the usual view of ethics as being too individualistic; secondly, it is a plea that morality is no form of merely uni-personal activity, but is rather an inter-personal relationship. We can only conceive of a good in some form of desirable conscious life. We find that most moralists have regarded conscious life as belonging to the mere individual, considered in abstraction and isolated from his fellows; and have further increased the artificiality of their treatment of the ethical problem by abstracting some element of conscious life and identifying goodness with the perfection of such element. Even consciousness itself, when it is regarded as that of the individual considered in abstraction, cannot possess ethical quality. Since a self is not active except among other selves, morality, being some attitude of the self as a whole, must be inter-personal. The problem is now to determine the relation between selves which is ethical. Whatever form of activity we decide to be morally valid, must have its psychical antecedents. There is disagreement among psychologists as to the beginnings of sociality. Professor Baldwin finds the beginnings of sympathy in imitation; but it is one thing to feel 'like' others, quite another to feel 'for' others. The latter cannot evolve from the former. Accordingly, many psychologists try to find the origin of ethical love in the maternal instinct. Here, too, we find difficulties in evolving ethical love from a mere instinct. Regarding philanthropy as a form of the maternal instinct, we do not even here get rid of that automatism and narrowness of range aforementioned. But a true 'philanthropy'—that love of man which is ethical—will seek for others a 'good' which one judges highest for oneself. This coherence of selves is life's consummate achievement. The ideal is a 'love of love' rather than the desire for the mere happiness of another. However, there is no meaning in the statement that love alone is good, it is only in its manifestation in various human activities that we prize it. Granted that there are no deeds right in themselves, we may well expect that

love will modify our deeds in respect to such matters as time, place, and circumstance of performance, frequency or infrequency of action, together with abstention on occasion. The 'goods' of life are but the tools of love. Equality of opportunity is of real value only as opportunity is ethically interpreted and improved. The ultimate *rationale* of 'love' appears to be connected with the view that finite selves are dependent upon a common ground alike for their existence and apparent independence, as for the possibility of their interaction. The proper ethical union of men requires not only a metaphysics for its justification, but a religion for its realization.

HENRY MAYER.

*Die Anamnesis.* ERNST MÜLLER. Ar. f. G. Ph., XVIII, 2, pp. 196–225.

The forms of thought in Plato have a two-fold aspect: (1) centers of extended connection, (2) bridges and ways which lead to those possible connections and to unification. Reminiscence is a bridge from plurality to unity, from *werden* to *sein*, and is thus the ground of the possibility of transition of thought from the unconscious to consciousness. If the question be raised as to the possibility of error, the answer is, it is not possible on the basis of rationalism, but only from the psychological point of view, where the distinction is made between perception and the idea of reminiscence, and the possibility of error lies in the relation between these. Here similarity is the criterion of determination. But to use this criterion is to think, and in this way, Platonism becomes closely related to Hegelianism. Reminiscence is, therefore, immanent in every act of the soul as the organizing element, and is connected with the doctrine of ideas. Knowledge consists of right opinions united by reminiscence, and hence thought leads from the subjectivity of right opinion to the reality of the idea and thus to the security of knowledge. But similarity is not only a function, it is also a content of experience. Whoever compares two things does so as if he applied the concept of similarity to the two things compared, even though he cannot comprehend this concept as such. Hence similarity becomes identity. But reminiscence is also a developing notion. It is the temporal rememberance of a non-temporal thing, and signifies the endlessness of thought. It is the bond which, conscious of itself and its own activity, takes up its past and links it with the future. Memory is a passive principle which continues the past and itself. Reminiscence is the active principle corresponding to memory. It arranges the contents of memory in an orderly way. It first appears in sense perception as the awakener of desire but the purifying activity of reminiscence transforms the impure into the pure. Memory causes us to live again psychic experiences. Reminiscence is the starting point for the transformation of the soul which pure thought makes possible for the philosopher.

MARK E. PENNEY.

*The Problem of Knowledge.* NORMAN KEMP SMITH. J. of Ph., Psy., and Sci. Meth., IX, 5, pp. 113–128.

The writer of this article undertakes to show that a satisfactory theory of knowledge must be at once realistic, phenomenalistic, and individualistic

This he does by an analysis of Kant's epistemological writings and by comparing them with the position of Bergson. Traditional idealism, both subjective and objective, is either erroneous or inadequate. Kant stops short with phenomenalism and natural science, and pronounces any attempt to go beyond these as futile. He does not even show the relation between the two. Bergson's fundamental divergence from Kant consists in this, that he cherishes the hope, and supplies a wealth of detailed argument in support of the assertion, that by empirical circumstantial reasoning, based upon the fundamental characteristics of natural existence and of human life, we may penetrate to the noumenal sphere. The really critical issue in the present-day problem of knowledge would seem to be the question whether awareness or consciousness may legitimately be regarded as an *event*, and, therefore, as having a place in the single continuous causal series that constitutes the objectively real. This may be true of sensations, but not of the knowing process, of awareness or consciousness as such. Consciousness cannot be described as an event in any sense which would set it as an integral element into the single causal time and space series. The knowing process may be described, therefore, as a unique and non-natural type of relation. We may judge of man either from the point of view of his animal organism or from that of his inner life. It is upon the basis of the latter that the problem of knowledge must be solved. The problem of perception is for philosophy uniquely important, and cannot be solved by any conceivable advance either of physiology or of biology upon their present lines. With a physiology or a biology fundamentally different from those actually existent we are not, of course, concerned; in regard to such no prophecy, positive or negative, can be made.

Mark E. Penney.

*Some Misconceptions of Moral Education.* Henry Neumann. Int. J. E., XXII, 3, pp. 335–347.

A great deal of the present-day controversy on the subject of moral education springs from certain misconceptions as to the nature of the schooling proposed in this subject. That moral instruction is necessary is true without question; though some argue that because of the predominance of other elements than reason in morality, that such instruction is valueless or harmful. Intelligent insight is necessary in order to make moral experiences of value, or to regulate the mere instinctive side of the pupil's nature. Instruction is often opposed on the ground that pupils at the school cannot think well enough to grasp important theoretical distinctions, but what is proposed to be taught is not abstract scientific ethics, rather it is concrete applications of it. Another objection raised against moral instruction is based on a popular but nevertheless fallacious theory of character. It is argued that because of the poor moral environment such instruction is of no value. But the aim is to overcome obstacles of environment; besides the environment is not altogether bad. However, instruction alone is insufficient. Inspiration and training are necessary. It is in this triple sense that the term ' moral education ' should be employed.

Henry Mayer.

*Sur la structure logique du langage.* L. COUTURAT. Rev. de Mét., XX, 1, pp. 1–24.

Logic and grammar should prove mutually helpful, for, on the one hand, an understanding of logical principles makes possible a more accurate analysis of the structure and function of the elements of language; and, on the other hand, the discovery of common ways of expressing ideas in language points to common logical forms. From the standpoint of logic there are only two general classes of words, verbs and nouns. Verbs express a fact or event, and imply an assertion; nouns refer to a thing or object, and express a general notion. The vérb is the essential part of the proposition. Logically speaking, all the terms of the proposition except the verb constitute the subject, and the verb asserts their relation. Certain facts about the logic of language can be learned from the study of the derivation of words. A noun derived from a verb-root is like an infinitive, that is, it is a verb stripped of its determinate and assertive character. On the other hand, in a logical language, a verb cannot be derived from a noun-root except by the aid of suffixes. Strictly speaking, the class of particles includes only prepositions and conjunctions, but more loosely taken, it includes adverbs. Adverbs are circumstantial complements, and often take the place of a preposition and noun in the expression of relation. Conjunctions express the relation between whole propositions instead of between the elements in a proposition. In the logical international language *Ibo*, there is much greater conformity to logical principles than in the natural languages.

KATHERINE EVERETT.

*Le "volontarisme intellectualiste."* A. LALANDE. Rev. Ph., XXXVII, 1, pp. 1–21.

The author, before taking up the more specific review of Fouillée's *La Pensée et les nouvelles écoles anti-intellectualistes*, calls attention to the fact that Fouillée is a very early exponent of the later voluntarism and that this book is in accord with the general position taken in his previous works, that we must add to the 'will to live' the 'will to believe,' and to the 'will to power' the 'will to know.' This doctrine is that things present fundamentally the double aspect of idea and of energy, neither side of which can properly be neglected. Then the author considers the criticism, given in the work, of pragmatism as the right of each to his own individual interpretation devoid of any possible general test of its universal truth. This one-sidedness appears, too, on the epistemological side, for there is no way of distinguishing between the idea that works because it is true and the idea that works though it is false; for there are errors that are useful for life, as Nietzsche has said, and there are truths that are of no use for life, such as that of universal mortality. In addition, the doctrine of utility implies that of truth, and the reduction of truth to agreement with our ends is to imply the existence of law independent of our particular ends. The author then treats of Fouillée's criticism of intuitionism or, more specifically, of Bergson. In the first place, the doctrine

of the mere sense of life is insufficient as an explanation of reality, and in so far as it is unique, it is useless as a means of communication but rather makes all communication impossible. Moreover the immediate datum of consciousness does not exist, but is rather the extremely rapid resultant of a complex process. With regard to the theory of uniqueness, Fouillée declares that this is not necessarily a proof of freedom. The doctrine of Bergson concerning the influence of the spatial and scientific upon our language is, too, contrary to the actual history of language itself. The author then passes to the development of the doctrine of *idées-forces*. This starts from the immediate knowledge of the individual self, the will to be conscious. This expresses itself not only in the conservation of the activities of life but also in their increase and thus includes both the changing and the changeless in its development. But, says Lalande, is this then a monism, if we can thus include so great a variety of factors? Moreover, the essential nature of the 'will to know' is rather the possibility of community of individuals than the mere subjective immediacy given by Fouillée. Further, in the immediacy of Fouillée's starting-point, the same fault is inherent as in Bergson's intuitionism. This throws us back to certain assumptions, and these are founded not on proof but on the general consent of mankind, that is, on the fact of the common nature of our experience. This, for Lalande, is both the ultimate fact of our experience and the explanation of the alleged circle in pragmatism.

F. R. PROUT.

*The Consciousness of Sin.* EDWARD L. SCHAUB. Har. Theol. Rev., Vol. V, No. 1, pp. 121–139.

Nowhere else is the kinship of the human race more apparent than in the religious expression of different peoples. The Hebrew, possessing neither the æsthetic spirit of the Greek, nor the imaginative tendency of the Hindoo, has a genuine poetic insight, the import of which is distinctly ethical. The consciousness of sin, though more definitely expressed by the Hebrew than others, has its place in all religions. As a thinking being man can never resolve the 'ought-to-be' into the 'is.' A golden age in the past is sometimes conceived. Here principle is interpreted in terms of historical fact. The deeper significance of the story of Paradise was formerly expressed as fact, rather than as principle. The story of the fall interpreted as historical fact denies world progress. Any researches on the subject of religion which leave out a consideration of the consciousness of sin invalidate themselves. The true significance of the consciousness of sin is not revealed in myth nor logical formulations of the doctrine of degeneration. No account of experience can be true that recognizes only pessimistic elements. Latent in every experience there is a basis for optimism. A man identifies his real nature with an ideal. Consciousness of sin is a first step towards overcoming sin. The price to be paid for selfconsciousness is a strife between the spiritual and natural elements. True freedom must be achieved. Man is sent into the world with a spiritual mission. Sin came into the world only that grace might the more abound.

Through consciousness of sin, we are led to a truer conception of God, to a higher kinship of man to man, and man to God.

M. W. PAXTON.

*Notes on the Philosophy of Henri Bergson.* RALPH BARTON PERRY. J. of Ph., Psy., and Sci. Meth., VIII, 25 and 26, pp. 673–682, 713–721.

The first of these papers deals with Bergson's attack upon intellectualism. For Bergson, intellect separates reality, giving only abstract and partial aspects of it. Its method is analysis. In opposition to this, Bergson proposes a reality which abides not in fixity, discreteness, and space; but in fluidity, continuity, and time. But (1) the anti-intellectualist misunderstands the intellectualist method; (2) he confuses a symbolized relation with a relation of symbols; (3) he assumes that whenever concepts are used they must be used 'privatively'; (4) in putting forth his positive views he makes an unfounded claim to the immediate apprehension of reality. For Bergson, determinism is a device of the intellect. Will is the author of the principle. This supports indeterminism only under two assumptions: (1) that the agency which employs a category is not subject to that category, and (2) that laws are artificial. Bergson's objection to the intellectualist version of time rests upon a mistaken conception of the analytical method. Again, he fails to represent correctly the determinist's position in such a case as "Paul's ability to predict Peter's choice." His positive version of freedom follows from the postulate of 'dynamism,' which is the sole support of his metaphysics and philosophy of religion. Criticism must then challenge the postulates: (1) the origin of the idea of causality is irrelevant; (2) 'dynamism' depends on the error of 'pseudo-simplicity.' Proof of the creative power to do requires the abandonment of every tried method of knowledge.

E. JORDAN.

*Modern Liberalism and that of the Eighteenth Century.* EDWARD CALDWELL MOORE. Am. Jour. Theol., XVI, 1, pp. 1–19.

Theologically conservative minds are convinced of the religious inefficiency of liberal movements. They fear the lack of the enthusiasm and of the co-operation which characterize institutional religion. On the other hand, the liberal feels himself trammeled by any institutional forms and states his claims through the appeal to life. But under the efficiency test conservative forms are often more successful than liberal forms. In the liberal movement of the twentieth century, how can earlier mistakes be avoided? One of the great gains of the nineteenth century is the acknowledgment that religion is not a system of doctrine, not identifiable with any particular statement of religious truth. Following the rationalism of the eighteenth century, the liberal movement of the nineteenth had a devastating effect, and the reason for it is neither restatement of doctrine nor readjustment to life. Contention for liberal theology may fail because it is a contention for theology at all. Orthodoxy and heterodoxy may both fail on this point, because it is intellectualism. Lib-

eral movements are often characterized by intellectualism, a prevailing negative quality, and excessive individualism, which latter is not freedom in religion but freedom from religion. Such were the traits of eighteenth century liberalism. It implied revolt against all authority, the assertion of the unqualified right of pure reason. It was opposed by Pietism in Germany, by Evangelicism in England, and by the Great Awakening in America. From the coil of contradictions formed by this opposition, Kant's new theory of the universe, which was formulated in opposition to the dualistic theory, has set us free. But only now the reconstruction, as a whole, in its coherent quality and in its aspect as a positive faith, is beginning widely, in all portions of our country, to possess the minds of men. This reconstruction has taken the foundations away from both the old orthodoxy and the old heterodoxy, yet each, in part, survives and is potent.

E. JORDAN.

*The Meaning of Mysticism as seen through its Psychology.* W. E. HOCKING. Mind, 81, pp. 38–61.

Philosophers, such as Royce, have attacked mysticism as a metaphysical theory; psychologists have analyzed it as an experience. Mysticism is not so much a metaphysics or an experience as an art, the art of worship. It is necessary to give primary attention to the motive of the mystic as an active individual, attending in only a secondary way to the phenomena of passive ecstasy. The mystic does not try to define anything, but to tell us that there is possible a practical cognition of the absolute unattainable by philosophical knowledge. The words unitary, immediate, ineffable, have been wrongly used in a metaphysical sense in application to the mystic doctrine, while they are really a psychological report of the mystic experience. Though the experience of the mystic is an alternation of states, it is not analogous to any simple physiological or psychological system. Delacroix represents the alternation of states as something to be overcome by a final synthesis which unites previous stages of expansion and depression on a calm and elevated level. It seems truer to regard the alternation between concentrated worship and attention to other affairs, as continuing throughout the mystic's life. In analogy with the function of sleep in the physical life, the state of contemplative self-abandonment is a condition of maintenance of spiritual integrity on the part of the mystic. Though many phenomena of mysticism are social in character, the true mystic is he who attains strength in solitude; and yet this very entrance into infinite subjectivity intensifies the power for social service. The mystic's purpose is not to effect a spiritual retreat from the world but to make a spiritual journey to the heart of it. The impulse of worship is an impulse toward integrity in one's relation to his absolute. The true elements of this impulse, ambition and love, are not incompatible, as Leuba holds, but both, when transmuted by the true mystic experience, point in the same direction. Mysticism, in its highest form, does not annihilate the impulses but envelops and transforms them all.

J. R. TUTTLE.

*Does Moral Philosophy rest on a Mistake?* H. A. PRITCHARD. Mind, 81, pp. 21–37.

When, on reflection, we ask why we should perform the irksome duties which we have formerly accepted without question, moral philosophy tells us that we should do so and so, either for our own happiness, or because of the goodness of something involved in the action. The former answer appeals to our interest, but does not convince us that we ought to live up to moral rules. The latter answer may, firstly, tell us that any one's happiness is a good and therefore should be sought by us. This position errs in that it presupposes the thesis that what is good ought to be; also in that it does not correspond to our actual moral convictions. But, secondly, we may be told that the working for happiness is itself good, and that the intrinsic goodness of such action is the reason why we ought to do it. An action of this kind may spring from a feeling on the agent's part that he ought to do it, or from some good emotion. The former alternative presupposes the recognition that the act is right, the latter, that we can feel an obligation to do that which is prompted solely by the desire to do it. To base the rightness of an act upon its intrinsic goodness implies that goodness is that of the particular motive, whereas rightness is independent of the question of motives. The sense of obligation is underivative or immediate. While we may come to appreciate an obligation by an argument, that is, a process of non-moral thinking, moral thinking is the immediate and direct perception of an obligation. On the above view, when we act from a feeling of obligation, we have no purpose or end, though we have a motive, in that the sense of obligation moves us to act. Again, this view necessitates a sharp distinction between virtue, which refers to acts which arise from some intrinsically good emotion; and morality, which refers to acts done from a sense of obligation.

J. R. TUTTLE.

*Essai de démonstration purement a priori de l'existence de Dieu.* A. BOUYSSONIE. Rev. de Ph., XII, 2, pp. 113–132.

An attempt is here made to present a rigorous proof of the existence of God, based on rational principles without making any direct demands on experience. Above all, various objections which still prevent some thinking persons from admitting the value of this purely *a priori* proof are here discussed. It will be asked, to begin with, that reason be granted objective validity where it affirms first principles, or when in the form of rigorous logical steps deduced from premises which are certain. The proof bases itself on two sets of arguments; the first, on the principle of 'identity and contradiction,' in the form of the ontological argument; the second, on the principle of 'sufficient reason.' The first proof is presented in six steps the general conclusion of which is, that it is absolutely necessary that the mind reject all ideas that appear contradictory; it is absolutely necessary that the mind hold to the principle of identity; it must then affirm a Being, the greatest possible, the most perfect, infinite, necessary, and which must exist; that Being exists. The argument

based on the principle of 'sufficient reason' instead of directly applying a principle to an idea, applies a principle to a principle, in the form: all that is not contradictory is possible. All possible objections to each argument are presented and answered. If the analyses have been exact and the reasoning logical, it is necessary to grant the ontological proof in particular, among the *a priori* proofs, a value equal to that of all other proofs of God. It can never be a popular proof; but if it convinces the metaphysicians, that suffices.

HENRY MAYER.

*Discussion: Professor Dewey's Action of Consciousness.* EVANDER BRADLEY MCGILVARY. J. of Ph., Psy., and Sci. Meth., VIII, 17, pp. 458–460.

In connection with Professor Dewey's statement that the "action of consciousness means the organic releases in the way of behavior, which are conditions of awareness and modify its content," Professor McGilvary proposes the following questions: (1) What effect does this have on questions concerning the relation of body and consciousness? (2) How does Professor Dewey make out the aim of knowledge as distinct from and conditioned by those organic releases? (3) What is Professor Dewey's contact with 'Program Realists' in regard to changes made in Knowledge as distinct from organic releases? (4) After distinguishing between consciousness and organic releases, what is the justification for asserting that knowledge can be only of the effects of the conditions of knowledge?

MATTHEW W. PAXTON.

# NOTES.

Professor A. S. Pringle-Pattison has just delivered the first course of his Gifford Lectures at the University of Aberdeen. The subject of the course was, "Contemporary Thought and Theism," and the ten lectures had the following titles: "Hume's *Dialogues Concerning Natural Religion;*" "The Idea of Value as Determinative;" "The Philosophical Problem in the Latter Half of the Nineteenth Century;" "The Emancipating Influence of Biological Science;" "The Lower and the Higher Naturalism;" "Continuity of Process and the Emergence of Real Differences;" "Man as Organic to the World;" "Ethical Man, The Religion of Humanity;" "Positivism and Agnosticism;" "Retrospect and Provisional Conclusions."

Dr. Alex. Meiklejohn, professor of logic and metaphysics in Brown University, has been appointed president of Amherst College.

In Brown University, Professor S. S. Colvin, of the University of Illinois, has been called to a newly established chair of education and Dr. Alfred Jones, instructor in Cornell University, has been appointed assistant professor of logic and metaphysics.

Professor E. C. Wilm has been called from Washburn College to the chair of philosophy and psychology at Wells College, Aurora, N. Y.

Dr. R. A. Tsanoff has been appointed instructor in philosophy in Clark College and University.

We give below a list of the articles, etc., in the current philosophical periodicals:

MIND, No. 82: *F. C. S. Schiller*, Relevance; *D. C. Macintosh*, Representational Pragmatism; *R. M. MacIver*, The Ethical Significance of the Idea Theory; *E. D. Fawcett*, "Matter and Memory;" Discussions: *A. W. Moore*. Thought and Its Function; *H. S. Shelton*, Dr. Alexander and the *a priori;* Critical Notices; New Books; Philosophical Periodicals; Notes.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, IX, 8: *Karl Schmidt*, Studies in the Structure of System, I; *George R. Montgomery*, A Simple Method for the Study of Entoptic Phenomena; Discussion: *Edgar A. Singer*, On Mind as an Observable Object; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IX, 9: *Roy Wood Sellars*, Is There a Cognitive Relation?; Discussion: *Karl Schmidt*, Inversion; Societies: *H. L. Hollingworth*, New York Branch of the American Psychological Association; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IX, 10: *H. M. Kallen*, Beauty, Cognition, and Goodness; *M. E. Haggerty*, Imitation and Animal Behavior; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IX, 11: *W. H. Sheldon*, Chance; *J. E. Wallace Wallin*, Experimental Oral Orthogenics; Discussion: *Professor Poulton*, Letter; *Evander Bradley McGilvary*, Professor Dewey's Awareness; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IX, 12: *Walter T. Marvin*, Dogmatism versus Criticism; *Karl Schmidt*, Studies in the Structure of Systems, 2; Discussion: *Bernard Muscio*, Miss Calkins's Reply to a Realist; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

THE INTERNATIONAL JOURNAL OF ETHICS, XXI, 4: *C. Lloyd Morgan*, The Garden of Ethics; *Paul S. Reinsch*, Energism in the Orient; *Alfred W. Benn*, Milton's Ethics; *Ramsden Balmforth*, The Influence of the Darwinian Theory on Ethics; *S. Radakrishnan*, The Ethics of the Bhagavadgita and Kant; *Ada Eliot Sheffield*, The Written Law and the Unwritten Double Standard; Book Reviews; Books Received.

THE PSYCHOLOGICAL REVIEW, XIX, 3: *Edward L. Thorndike*, The Curve of Work; *C. E. Ferree* and *Gertrude Rand*, Colored After-Image and Contrast Sensations from Stimuli in which no Color is Sensed; *Knight Dunlap*, A New Laboratory Pendulum; Discussion: *Eliot P. Frost*, Can Biology and Physiology Dispense with Consciousness.

THE PSYCHOLOGICAL BULLETIN, IX, 4: General Reviews and Summaries; *Adolph Meyer*, Pathopsychology and Psychopathology; *S. I. Franz*, Experimental Psychopathology; *Trigant Burrow*, Conscious and Unconscious Mentation from the Psychoanalytic Viewpoint; *E. B. Huey*, The Present Status of the Binet Scale of Tests for the Measurement of Intelligence; Special Reviews.

IX, 5: *R. P. Angier*, Cutaneous, Kinæsthetic, and Miscellaneous Senses; *A. H. Pierce*, Synæsthesia; *J. F. Shepard*, Affective Phenomena—Experimental; *H. N. Gardiner*, Affective Phenomena—Descriptive and Theoretical; *W. B. Pillsbury*, Attention and Interest; *Knight Dunlap*, Time and Rhythm; Special Reviews; Discussion; *H. L. Hollingworth*, The Psychology of Advertizing; Books Received; Notes and News.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XXIII, 2: *E. B. Titchener*, Description vs. Statement of Meaning; *L. R. Geissler*, Analysis of Consciousness under Negative Instruction; *Raymond Dodge*, The Theory and Limitations of Introspection; *E. E. Southard*, Psychopathology and Neuropathology: The Problems of Teaching and Research Contrasted; *A. H. Munsell*, A Pigment Color System and Notation; *H. P. Weld*, An Experimental Study of Musical Enjoyment; *J. S. van Teslaar*, Psychoanalysis: A Review of Current Literature; *C. E. Ferree* and *Gertrude Rand*, A Note on the Determination of the Retina's Sensitivity to Colored Light in Terms of Radiometric Units; Book Reviews; Book Notes.

KANT-STUDIEN, XVII, 1 u. 2: *R. Eucken* und *B. Bauch*, Worte der Erinnerung an Otto Liebmann; *R. Eucken*, Ansprache bei der Bestattung; *Bruno Bauch*, Nachruf, nach den am Sarge im Namen der Kant-Geschell-

schaft gesprochenen Worten; *Bruno Bauch*, Immanuel Kant und sein Verhältnis zur Naturwissenschaft; *R. Hönigswald*, Zur Wissenschaftstheorie und -systematik; *J. Schulz*, Über die Bedeutung von Vaihingers "Philosophie des Als Ob" für die Erkenntnistheorie der Gegenwart; *G. Misch* und *H. Nohl*, Das Handschriftenmaterial zur Geschichte der nachkantischen Philosophie in den deutschen und österreichischen Bibliotheken; Rezensionen.

Logos, III, 1: *A. Meinong*, Fur die Psychologie und gegen den Psychologismus in der algemeinen Werttheorie; *Georg Simmel*, Die Wahrheit und das Individuum; *Max Frischeisen-Kohler*, Wilhelm Dilthey als Philosoph; *Herman Graf Keyserling*, Das Wesen der Intuition und ihre Rolle in der Philosophie; *Ernst Bernhard*, Die Struktur des Französischen Geistes; *Marianne Weber*, Autorität und Autonomie in der Ehe; Notizen.

Archiv für Geschichte der Philosophie, XVIII, 3: *Hubert Röck*, Aristophanischer und geschichtlicher Sokrates; *Wilhelm Nestle*, War Heraklit "Empiriker"?; *Josef Dörfler*, Die Kosmogonischen Elemente in der Naturphilosophie des Thales; *J. Halpern*, Philosophiegeschichtliche Arbeit in Polen von Anfang 1910 bis Mitte 1911; *H. Gomperz*, Einige wichtigere Erscheinungen der deutschen Literatur über die Sokratische, Platonische und Aristotelische Philosophie 1905–1908; Rezensionen; Die neuesten Erscheinungen auf dem Gebiete der Philosophie; Zeitschriftenschau; Zur Besprechung eingegangene Werke.

Zeitschrift für Psychologie, LXI, 1: *Walther Poppelreuter*, Nachweis der Unzweckmässigkeit die gebrauchlichen Assoziationsexperimente mit sinnlosen Silben nach dem Erlerungs- und Trefferverfahren zur exakten Gewinnung elementarer Reproductionsgesetze zu verwenden; *Maximilian Rosenberg*, Zur Pathologie der Orientierung nach rechts und links; Literaturbericht.

Revue de Philosophie, XII, 4: *J. Bonnifay*, La démonstration a priori de l'existence de Dieu; *A. Bouyssonie*, Réponse à M. Bonnifay; *H. Coïn*, La crise du Mutationisme; *F. de Grandmaison*, Les grandes nevroses et leur traitement moral; *M. de Wulf*, Les courants philosophiques du moyen âge occidental (Deuxième article); *J. Bulliot*, Les deux idéalismes; Analyses et Comptes rendus; Recension des Revues et Chronique.

XII, 5: *M. Gossard*, Sur les frontières de la métaphysique et des sciences; *M. Monsaingeon*, La part du physique dans les psychonévroses et la cure physique; *A. Diès*, Revue critique d'histoire de la philosophie antique; *P.-A. Le Guyader*, Les Morales positivistes et la morale thomiste; Analyses et Comptes rendus; Recension des Revues et Chronique.

Revue de Métaphysique et de Morale, XX, 1: *L. Couturat*, Sur la structure logique du langage; *C. d'Istria*, Les formes de la vie psychologique; *A. Padoa*, La logique deductive (suite); *P.-G. La Chesnais*, La Nature et l'Homme d'après Sigurd Ibsen; *H. Norero*, La socio-psychologie de W. Wundt; *M. Djuvara*, La théorie électromagnétique; *M. Leroy*, Les obligations des ouvriers syndiques; Livres nouveau; Revues et Periodiques; Correspondance; Nécrologie; Erratum.

REVUE PHILOSOPHIQUE, XXXVII, 4: *A. Rey*, Les idées directrices de la physique mécaniste; *N. Kostyleff*, La psycho-analyse appliquée a l'étude objective de l'imagination; *A. Berrod*, Le raisonnement par l'absurde et la méthode des résidus; Analyses et Comptes rendus; Notices bibliographiques; Revue des périodiques étrangers.

XXXVII, 5: *J. de Gaultier*, Identité de la liberté et de la nécessité; *Dr. Jankélévitch*, Essai de critique sociologique du darwinisme; *A. Rey*, Les idées directrices de la physique mécaniste (2e et dernier article); Analyses et comptes rendus; Revue des périodiques étrangers; Notices bibliographiques.

REVUE DES SCIENCES PHILOSOPHIQUES ET THÉOLOGIQUES, VI, 2: *A. D. Sertillanges*, La Sanction morale dans la Philosophie de Saint Thomas; *M. D. Roland-Gosselin*, Les Méthodes de la Définition d'après Aristote; *M. Jacquin*, Le Magistere Ecclésiastique Source et Règle de la Théologie; *R. Coulon*; Jacobin, Gallican, et "Applean," le P. Noël Alexandre (suite); Note; Bulletins, Chroniques; Recension des revues.